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Motorization and Mechanization in the Cavalry

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"FUTURE wars" said General Pershing, "may begin in the air but they will end in the mud." Nor was the seventy-year-old remark of a Russian officer to McClellan less apposite when he said: "In war all roads are bad."

Yet, since that far distant day when the transcendent genius or an unknown savage devised the wheel as an aid to locomotion, the road in all its forms from marble to chicken-wire has played the predominant role in the bellicose meanderings of mankind.

Motorized Supply

The invention of the motor car and its variants has not only failed to alter this condition but has in fact emphasized it.

The mechano-military experiences of our army form an apt illustration. First, in Chihuahua, roads in the normal acceptance of the term did not exist, so that their construction and maintenance constituted one of our prime considerations, with the result that though the task was difficult it was in a measure accomplished and the trucks passed through. In France, on the other hand, the situation was wholly different. There the enormous network of good roads so facilitated truck movements as to give us an exaggerated idea of its ease and possibilities.

Yet, in neither France nor Mexico were our roads subject to enemy attack so that in this respect our experience lacks finality.

Now, while the two cases cited are diametrically opposed, it is none the less certain that in any theater of war save Western Europe the general condition of roads will approximate more nearly to those of Mexico. For example, in the continental United States at the present time less than 6½ per cent of roads are improved. As a consequence, it is patent that our previous exaggerated expectations in

the line of culinary and lethal conveniences will have to be rigorously curtailed.

It is realized that these statements will be challenged by that vast fraternity of motorists who spend their Sundays in pleasant perambulations along our arterial highways. But let these skeptics try our vastly more numerous byways and the valor of their ignorance will be abated. Moreover, let them remember that the difficulties they encounter are as nothing to the conditions which would confront the hundredth truck of a convoy.

If, for example, the Wilderness campaign of 1864 were reenacted on the same terrain with modern equipment, it is highly problematical if either side could maintain forces materially larger than those of Grant and Lee; while if an attempt were made to maintain World War standards in supplies and munitions the number of men would have to be considerably reduced.

Again, what Leavenworth graduate honestly believes that the blithe deployments and marvelous marches his phantom armies have made on the old Atchison pike could be accomplished during wet weather?

It may seem that we are over-stressing the question of roads but such is not the case. They are the Alpha and Omega of military operations and their number and condition will absolutely determine the character of the next war. Truly, there is grave danger lest the statement "Weather cool, roads dry and hard, all bridges two-way and up to fifteen tons," so often appearing in the general situations of map problems, may be taken seriously and delude us into a belief in the existence of such Elysian fields of war.

Vast concentrations, such as we saw in Europe cannot exist if they cannot be fed. Hence in most parts of the earth contending forces will be smaller or else tied like unborn babies to the placenta of a railway or river line. This reduction of forces will result in making the creation of flankless lines impossible.

As a consequence, maneuver will reappear. Time will again become the vital factor and TIME will not suffice for the assemblage of the enormous quantities of shells, guns, and material requisite for the set piece attack. When a choice must be made between the maw of the guns and the bellies of the men, the bellies win.

Before proceeding it is important to emphasize that our remarks are in no way intended to belittle the importance of motor transport. No matter how clearly we envisage the recrudescence of war of movement, the fact remains that progress and the memories of 1918 have conspired together so to increase the complexity of our requirements

that, no matter where we fight, the maintenance of the minimum supplies on which existence will be possible will require a maximum effort and one which can only be met by the employment of the utmost usable number of motor vehicles.

What we do wish to emphasize is the fact that such transport will have to surmount difficulties undreamed of on a holiday tour.

Role of Motor Combat Vehicles

Thus far we have been dealing with motors solely from the supply angle. Their usefulness as combat vehicles whether mounted on wheels or on caterpillars is equally important. In the remainder of this paper we shall consider these machines in all the various situations under which they may be employed either with or against Cavalry.

Before beginning this phase of our inquiry it seems relevant to advert once more to history in order definitely to confound blithesome theories of the self-styled mechanists or scientific warriors who are so exhilarated by the gaseous exhalations of their pet machines as to be oblivious to the necessity for more prosaic arms.

It is confidently asserted that if any one of these gentlemen will take the trouble personally to examine the districts made famous by the Peninsular and Bull Run campaigns of '62, of the Wilderness campaign of '64, he will have to admit that no machine yet made or dreamed of could have replaced to any appreciable degree the man on foot or the man on horseback.

True, there are a limited number of gasoline neophytes who, while admitting the impossibility of using machines in such country, avoid the issue by the happy statement that, in future, wars will not take place in that sort of country. The futility of such evasions seems almost too flagrant to merit remark, yet due to their insidious influence on the mechanically minded and gullible public it is necessary to answer them.

In the first place, any army deficient in fighting machines will inevitably do its utmost to nullify this defect by the use of geographical features inimical to machines. An airplane journey along the Atlantic seaboard will quickly convince the timorous passenger, eagerly searching for safe emergency landing fields, that forests and wooded country are more notable for their presence than for their absence even in this highly industrialized section.

Having had the honor of commanding tanks in action* we are the

*Major Patton commanded the 304th Tank Brigade in the San Mihiel offensive and in the Meuse-Argonne offensive until wounded.—EDITOR.

last to belittle their importance, but knowing their limitations as we do, we are unalterably opposed to the assigning to them of powers which they do not possess. Such action not only foredooms them to failure but also condemns the army which relies principally on them to disaster and defeat.

History is replete with accounts of military inventions, each heralded by its disciples as the *dernier cri*. Of yore the chariot, the elephant and, later, gunpowder were severally acclaimed as the mistress of the battlefield. Within our memory the dynamite gun and the submarine were similarly lauded. Now gas, the tank and the airplane share with each other this dubious honor. The glory of the skyrocket elicits our applause; the splash of its charred stick is unnoticed.

The inevitable fate of these specialities remind us of that verse of the Rubaiyat which reads:

"When you and I beyond the grave are passed,
Oh! what a long, long time the world shall last,
Which of our coming and our going heeds,
As ocean's self should heed a pebble cast."

Just so does the ocean of manpower receive the brightly tossed special pebble, utilizing for a time the ripples it causes and then absorbing them and it into the mighty surge of its eternal omnipotence.

The wrestling adage that: "There is a block for every hold" is equally applicable to war. Each new weapon demands a new block and is mightily potent until that block is devised. The development of these new weapons and their counters, these holds and blocks, is desirable in that they add to the repertoire of our attack and defense. They are dangerous when they cause us to pin our whole faith on their efficacy. It is only in the writings of the romantic novelists that we find the hero invincible due to his knowledge of some diabolically clever lunge. In the duel and in the fencing room victory comes to the man of many good attacks and sound parries; the man who uses all the means at hand to the accomplishment of the end sought—victory.

Modern Cavalry

While Cavalry is usually classed as an auxiliary arm, it is more in that it is capable of separate and wholly independent action.

Since the memory of man runneth not to the time when we entered a war with the pre-war organization, it were a waste of time to investigate the current one beyond the point of saying that cavalry units run the full gamut in size from squads to army corps.

There, are, however, certain increases and additions which deserve remark. The proportion of automatic weapons in our Cavalry is

now much larger than in any other Cavalry of the world. This will have most striking results. Formerly we were weak in fire power and that which we attained was paid for at the price of immobilizing a large number of our men. Now the use of automatic weapons permits us to develop a formidable fire effect while at the same time leaving the great majority of our men mobile, thus giving us a double threat in the offensive and making us more tenacious on the defense.

We have already incorporated the wheel-type armored car into our cavalry divisions and at this writing are carrying the process one step further by adopting a combined wheel and track machine for use with cavalry corps and, perhaps, divisions. This latter weapon is ideally suited to play the part of an offensive reserve and may on occasion be used for reconnaissance.

Finally, the partial motorization of cavalry supply trains will have a far-reaching beneficial effect on our mobility. This statement is such an apparent contradiction of our former mud-infested outlook that it requires explanation.

Throughout history wagon and pack transportation have never been able to keep up to the maximum useful speed of Cavalry, with the result that Cavalry has either hung back waiting on its wagons or else has gone on without them and gained a precarious livelihood off the country. Now when the conditions of roads and weather permits the use of trucks (seldom as this may be) our supplies can keep pace with us; for the rest of the time we are no worse off when we were before. The net result is clear velvet.

Cavalry Operations and Motorized Fighting Vehicles

Space will be saved and clarity increased if we examine the several functions of Cavalry in the sequence in which they will occur during our next attempt to insure the peace of the world by combat, and show the part we believe armored fighting vehicles will take in conjunction with Cavalry.

Distant Reconnaissance: The debut of effective airplanes gave widespread vogue to the notion that in this field they would more or less wholly replace Cavalry. However, riper experience of the effects of storms, fogs, darkness, forests, and enemy planes has so modified this view that now the airplane is considered as the ally, not the supplanter, of Cavalry for strategic reconnaissance.

For example, the airplane can indubitably spot large enemy concentrations at a distance and with a speed absolutely unattainable by Cavalry. On the other hand, information it gains is only positive. It can say there are enemy troops at Blank, but it cannot definite-

ly say there are *no* enemy troops at some other place. Airplanes cannot obtain identifications nor can they maintain constant surveillance. For all these purposes Cavalry is necessary. But the early information secured by the planes will materially assist the Cavalry in giving them a general direction in which to look and by aiding them constantly during the search.

Thus helped, the Cavalry's mission of gaining and maintaining contact with the enemy and locating and reporting the movement and position of his main bodies will be greatly facilitated.

When the number and condition of the roads permit the use of the wheeled-type armored car, these vehicles will add strategic feelers to the Cavalry. Their role is intermediate between the plane and the horse. Their speed permits them to gain contact sooner; they can frequently secure negative as well as positive information and they can occasionally get identifications. On the other hand, their inability to leave the road or to operate at night makes them useless for *tactical reconnaissance* and renders the probability of their penetrating the enemy screen to locate his main bodies small indeed. Another defect which is often overlooked in considering them is their inability to live off the country and the fact that with them it is all or nothing when a puncture or a breakdown bags the whole show. A lame horse loses one trooper.

In our opinion the organization of armored cars into tactical units is useless save for supply. They will act as naval cruisers, possibly in pairs, and will have to move and fight on their own. If they encounter enemy cars they should use Nelsonian tactics and close, shooting rapidly. Ambushes and barricades will be costly to them. As messengers in enemy country they will attain fine results.

When either the condition of the roads or lack of sufficient machines precludes their independent use, it will still be well to attach a few of them to cavalry units to be used as messengers, connecting patrols or for special limited missions close in.

Since the space separating the opposing armies is usually measurable in hundreds of miles and since, regrettably, the race of Deer Slayers and Kit Carsons is practically extinct, it is futile to send individuals on reconnaissance, despite the Biblical precedent established by Noah's dove. Recourse is therefore had to so-called reconnoitering detachments. There is nothing tricky or abstract about the name; it is a unit of Cavalry, sometimes a troop but usually a squadron, temporarily charged with reconnoitering duties.

Generally the fire power of the unit will be augmented by the at-

tachment of machine guns and, as just pointed out, armored cars may well be added.

The essential idea governing the use of these reconnoitering detachments is to furnish a control force and mobile base for patrols. Perhaps if we picture an ambulatory beehive moving down the road with small groups of bees going in and out searching for the honey of information, we will form an accurate notion of such a detachment. Like the hive, too, it can be stirred into vindictive activity against any interference with the endeavors of its members.

In determining the number of such detachments we are bound to consider three factors—namely, the amount of Cavalry we have available, the character of the enemy, and the number of roads. We will certainly be spreading it pretty thin if we figure a squadron for every twenty miles of front, and this distance would often be impossible were it not for the presence of the armored cars which can investigate distant and important localities and further act as communicating patrols to collect and rapidly transmit important information.

Suppose now that we have a reconnoitering squadron with a twenty-mile wide ribbon of country leading towards the enemy to examine, how does it act?

In the first place the squadron itself and all its patrols move by road. The squadron on the best or most centrally located and the patrols on the other ones leading towards the enemy. The squadron is preceded by five to ten miles by a patrol and its immediate safety is secured by the use of the normal advance guard.

Eventually the patrols meet enemy bodies of sufficient strength to force them to leave the road, when they proceed to find out the size and flank of this force.

It is after the mounted patrol is forced off the road that its superiority to its motorized brethren becomes especially marked. Small groups of horsemen are relatively inconspicuous; any bush, house or fold of the ground will hide them. They can see without being seen. More important still, they can use their own ears as well as profit by the keener hearing of their horses. Finally, they can keep on going by day and night, a capacity which does not adhere to the motor conveyed scout. If he descends from his machine to investigate on foot, he is not only slow but must always retrace his steps or be lost. By night he is immobile.

Eventually a number of such patrol encounters will induce the conclusion that there is a considerable body of enemy in a given locality. Good patrolling would definitely indicate the position and strength of the enemy.

If the reconnoitering squadron commander abides strictly by his mission of hunting the hostile main body he will try to avoid this enemy; but, since it is probable that the opposing force is part of a screen whose duty it is to prevent the further advance of our detachment, a fight will ensue. Our personal feeling is that even if the enemy were not trying to stop us, we would attack him. War is a question of killing, and the sooner it starts the better. However, the method first described is orthodox.

In reading of the tactics appropriate to such a fight we are apt to find ourselves enmeshed in a web of strange words, such as the "Pivot of Maneuver," "The Mass of Maneuver," etc. If instead of this we describe the tactics appropriate by saying: "Grab the enemy by the nose and kick him in the pants," we sacrifice purity to precision but we express the idea.

Cavalry tries to do just this. It grabs the hostile nose and tries to hold it by a violent and noisy head-on attack, using its automatic weapons and some dismounted troopers; while with most of its force mounted, it moves rapidly to a place from which the pant attack can be made with vigor and by surprise. We have dismounted part of our force to hold the enemy and have sent the rest off mounted to gain a position in rear from which they may attack.

If the enemy learns what is going on in time to deploy an effective, unshaken firing line against the turning movement the attacker has the choice of either repeating the nose and pant attack by dismounting a portion of his own force to grab the new nose and again turning with the rest, or to risk the fire and charge home.

When the ground permits the use of armored cars there are two ways in which they may be employed in the above operation. First, to add to the fire power of the nose attack by joining in the fire fight from a defiladed position. Second, by facilitating the march of the pant group. Remembering our contention that roads will always be used, part of the march of this column will surely be by road; armored cars with the advance guard could clear out enemy patrols which otherwise might delay the march. When the horsemen leave the road, the cars should seek a position from which to aid their attack by fire; or, failing this, should try to get around to the road by which the enemy advanced and moving on this either cut off his retreat or attack him in rear. Whatever happens they must be used. They are not intended to live forever.

Defiles: Some times during the reconnaissance period the duty of seizing defiles or bridges with a view either to holding them for

our Infantry or else of delaying the enemy at them will devolve on the Cavalry.

Rapidity of march is the first essential. And in such missions armored cars may be of vital assistance by aiding in the rapid brushing aside of small enemy detachments or hurrying on independently to seize the place itself and hold off minor enemy attempts until the arrival of the rest of the Cavalry.

In attacking a bridge an effort must be made to turn it, by finding a ford or by swimming. While this is going on the enemy at the bridge should have his nose held by a frontal fire attack. It is interesting to note that at the present time great difficulty has been encountered in teaching machines to swim. Providence has already instructed the horses.

In the case of a defile, turns will probably be impossible and a dismounted attack will have to be used.

In the natural course of events the next duty devolving on Cavalry would be:

Counter-Reconnaissance: The ability of the airplane to execute strategic reconnaissance irrespective of the activities of ground troops has to a degree deprived counter-reconnaissance of its strategic importance; still as we have seen the airplane does not secure sufficient details even to wholly fulfil this mission. Since these missing facts must be obtained by ground troops and since they alone are capable of tactical reconnaissance, the necessity for counter-reconnaissance is still important.

The measures may be carried out either offensively or defensively.

Offensive Counter-Reconnaissance: The technique employed differs but slightly from reconnaissance.

The size and density of the patrols is increased so as to insure the apprehension and destruction of hostile patrols. This of necessity causes the use of more reconnoitering detachments. The supporting brigades or regiments are moved up closer in order to be on hand to prevent the enemy breaking the line by destroying a detachment. Since wheeled armored cars can only operate on the roads and then only by day, they are of little use save as a means of determining the routes being used by the enemy.

While combined wheel and track cars can move off the roads, they are so hard to conceal that small enemy patrols can avoid them; at night they are useless.

Where both sides are aggressive a situation occurs latent with great possibilities of a cavalry battle. The best way to lift a veil is to destroy it.

In such fights in open country the track-laying type of car will be very useful. It will be employed either for frontal attacks or for turning movements. A pre-requisite for the success of either type of action is efficient combat reconnaissance. Even the best caterpillar machine has definite limitations as to the ground over which it can operate; to be held up by an obstacle under fire is fatal.

Defensive Counter-Reconnaissance: This is in effect a form of outpost differing only in that its purpose is to guard the secrets, not the security, of the main bodies in rear. The reconnoitering detachments remain still in the guise of supports while the patrols take on the character of outguards. The larger units in rear act as reserves to prevent ruptures of the line.

Natural obstacles are very suitable for the siting of such lines. The chances of an active enemy bringing on a cavalry battle against this type of screen is excellent.

Armored cars and portée Infantry are well suited to assist. The Infantry has time to examine and repair the roads they may have to use. Their movement and detrucking are covered by the Cavalry so that they have great liberty of action.

Wheeled armored cars will be utilized as communicating patrols and as observation posts by day. They can effectively cover long stretches of river also only during daylight.

The track type will be used in the cavalry battles which occur.

Convoys: The question of providing security for portée infantry columns in war of movement has been very lightly considered.

In very open country this duty can unquestionably be effected by the use of armored cars of the two types.

In closed country, since machines are incapable of *tactical* reconnaissance, protection must be afforded by Cavalry. This will certainly reduce the rate of the columns and require them to move by bounds, but nevertheless they will still be able—provided roads are passable—to move faster than marching Infantry. The more portée Infantry is used in open warfare the more will Cavalry be necessary to cover its march and its detrucking.

General Battle: Eventually the main forces of the two armies will get so close that the Cavalry will be squeezed out. Before this happens the army commander must decide on which flank he wants the bulk of his Cavalry; this must be a clear-cut decision and no straddle; a fifty-fifty split is fatal to its effective employment.

Being collected it must be used. The practice of letting it participate in the guise of a spectator is as absurd as it is usual.

Before considering the employment of Cavalry in general battle,

it is well to pause a moment and enumerate the characteristics which make Cavalry particularly effective.

These characteristics are: Its variable speed and individual road and cross-country mobility in any type of country and capacity of its units to fight either on foot or mounted. The high proportion of mobile automatic weapons in our Cavalry permits it to develop powerful fire effect while at the same time maintaining a large proportion of its men mobile for flank or rear attacks.

Again, its facility of movement permits it to apply its force at widely separated localities within a very brief space of time.

Since it can move across country in invulnerable formations, it can deliver its men at the desired place in an unfatigued condition.

It always supplies its own security.

If on reaching the vicinity of the enemy it seems expedient to execute further turning or enveloping movements, it can do so promptly and rapidly without being deterred by considerations of fatigue or waste of time.

In the event of successful action the immediate presence of the horse enables it to pursue vigorously and at speed.

If the fight is unsuccessful the same conditions of mobility enable it to withdraw rapidly straight to the rear.

Like Infantry it can operate tactically by night or day.

Offensive Battle: In such battles Cavalry should be used in wide turning movements against the enemy flank or preferably his rear. In these circumstances night attacks will be common. Fire fights will be the rule, but Cavalry must be prepared to charge boldly though usually in small units. It seems hardly necessary to say that in night charges success will depend on careful reconnaissance or previous knowledge of the ground.

The fact that Cavalry can live off the country is of material advantage, since in such operations supplies other than those of the enemy will be lacking.

The presence of track-laying armored cars will be a material help. In the open they can precede Cavalry or move abreast of it and add to its fire and shock powers. In closed country they will follow and, taking advantage of the information secured by the horsemen, can clear up resistances or act as pivots about which the Cavalry can maneuver.

Wheeled-type armored cars will be of little use.

Defensive Battle: Unless the enemy is very superior in Cavalry we should still employ our own as above outlined in incessant attacks on him.

When the hostile Cavalry is superior we will use ours in preventing him from carrying out against us the operations we have above outlined. We will also use it for delaying enemy enveloping infantry assaults by attacking their outer flanks.

The rapidity of its marches and its ability to worm its way across country without being impeded by traffic congestion, makes Cavalry particularly efficient in filling gaps in the line. A good illustration is afforded by the action of the first and second German Cavalry Corps on the Marne in 1914.

Track-laying armored cars will be employed in a manner similar to that described for the offensive. The question of their gas supply will be less difficult.

Exploiting a Break-Through: This situation applies chiefly to war of position because in open warfare it will generally be preferable to use Cavalry on the flank.

The creation of a breach of sufficient width to justify a break-through is not a function of the Cavalry but a responsibility of the other arms. The fact that in the World War on the Allied side no such breaches occurred until the last weeks is no criticism of the Cavalry. Lack of Cavalry made the German break-through of March 1918 abortive.

Due to its cross-country mobility Cavalry can be more readily moved up preparatory to an exploitation than can any other arm because in rear of an attack of sufficient magnitude to create a penetration, the congestion of the roads due to traffic and shelling will be appalling.

The fluid mobility, fire power, and ability to live off the country and maintain constant pressure both day and night inherent in Cavalry render it priceless for exploitation. Tactically it may either be employed to maintain contact with the enemy and prevent his reforming or else it may be directed to operate against the rear of the intact portion of his line and widen the breach.

Armored cars of the track-laying type, fast tanks and airplanes will be most useful in getting the Cavalry over the difficult task of making the initial passage of the breach, where without their aid it would suffer losses and delays. Indeed for the first step tanks and track-laying armored cars are superior to Cavalry, but almost at once their value dwindles due to the absence of supplies, the terribly exhausting nature of the work on their crews, and the fact that they are more subject to delays incident to the ground and to the effects of artillery fire. Finally, they cannot operate at night, or hold captured ground.

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The airplane will be useful throughout daylight and to a degree at night, but can neither take prisoners, capture material nor hold ground.

Pursuit: When during the course of a general battle it becomes apparent that the enemy is preparing to withdraw, the Cavalry must be warned so as to have time to assemble to the front and flank preparatory to pursuit.

It is a well-known fact evinced both by childhood experience and the history of countless battles, that a man running away can always outdistance a pursuer running after him. For this reason Cavalry is the ideal means for pursuit; first, to catch up with the enemy and then to delay his march until the arrival of the Infantry.

In gaining a position on the enemy line of retreat from which to delay him, Cavalry should start with a sufficiently wide turning movement to avoid his Cavalry detachments. If it should encounter such forces it should not fight but rather use its speed to get around.

Having gained a position on the hostile flank and rear, Cavalry should at once start attacking the enemy and breaking up his rest. Its operations must be *ceaseless day and night*. The method of action will depend on circumstances. At first it will have to be by fire. Bursts of surprise fire will be particularly effective. When the enemy becomes demoralized, free use should be made of the charge.

When defiles or bridges exist on the line of retreat the Cavalry should try to reach them first. However, it should not plug up all holes of retreat too soon. By pretending to be on the point of closing the last bolt hole, the enemy is induced to demand ever increasing marches of his men with the result that soon fatigue and demoralization will claim more casualties than bullets. After a satisfactory reduction is produced, the rest may be rounded up.

Whatever supplies Cavalry obtain during pursuit must come either from the enemy or from God—none can be sent them.

For pursuit both types of armored cars will be useful: the wheeled-type to move far around the flank to raid or to precede the Cavalry in reconnaissance until contact is made; the track-laying type to accompany the Cavalry in open country or to follow it in closed and to participate in combat. The possibility of getting some fuel up to them will be small but worth trying.

The fact that they cannot work at night is a heavy drawback.

There should be close liaison with airplanes who will not only attack the enemy but also apprise the Cavalry of his routes and, if possible, of the position of his delaying detachments.

In this, as in all other operations in future wars, our own air-

planes must be counted on to afford a maximum protection to our march columns of ground troops of all sorts.

Covering Withdrawals: If the shoe is on the other foot and we are the beaten and retreating party, it is up to our Cavalry to cover us and minimize the effects of hostile pursuit.

This they accomplish by fighting off hostile Cavalry, by attacking the flanks of pursuing Infantry, and by protecting the withdrawal of our own Infantry covering detachments.

In case there are unprotected defiles or bridges on our line of march the Cavalry must keep the enemy from occupying them.

Armored cars of the wheeled-type will be used to make short delays on the roads. The smoke devices with which they are provided may facilitate their escape. These cars will be effective in making small demolitions. They will carry the explosive and cover its emplacement. Their efficiency will depend on the valor and initiative of their crews. Their casualties will be excessive.

The track-laying armored cars will be especially valuable in covering the retirement of Cavalry. They will remain in position until the last mounted unit is well away and will then rejoin. If the enemy is using artillery they will have to occupy concealed defiladed positions and attack the leading elements of the pursuit as these reach the position just abandoned.

Flank Guards: This task should be performed by the use of very aggressive delaying action.

The earliest possible contact must be gained with the enemy with a view to at once attacking him and causing him to deploy. Ambushes will be utilized. Since at first it is not a question of holding ground but simply of slowing up the hostile march, positions parallel to the line of march may be utilized. Such positions should be selected on the flank in the direction of which the force being covered is marching so as to prevent the Cavalry from getting cut off. Demolitions must be used to the full.

Where roads permit it, wheeled-type armored cars should be pushed out early to locate and engage the enemy. Later they cover the flanks.

Track-laying armored cars should be used for surprise attacks and to cover the withdrawal of the mounted units.

Cavalry in Combat Against Mechanized Forces: In considering this phase of combat it is desirable first to call attention to certain limitations which will effect the employment of mechanized forces, because thus far the glamour of the unknown attached to them has caused us to gloss over or neglect their shortcomings.

In the first place, no mechanized force the size of a brigade, using any known type of vehicle, is any less tied to roads for marching and supply than is a brigade of other arms.

In order to force the passage of obstacles such as creeks, gulches, etc., it is necessary for them to establish a bridgehead. This fact alone will always demand the presence of a considerable number of portée Infantry, or as some writers call them "Tank Marines."

The transport of this force necessitates the presence of numerous non-fighting vehicles, with a corresponding elongation of the column.

This elongation increases the very real difficulty of transmitting information and orders along the column. A fact which is bound to seriously delay both the speed of the march and the rate of the deployment. Most roads are not concrete boulevards and are more apt to be twelve than forty feet wide.

Kipling's famous lines about

"The everlasting waiting on the everlasting road,

For the commissariat camel with his commissariat load"

may tomorrow have to be revamped so as to contain some reference to this new problem.

Up to the present no mechanically transported security groups have been able to insure effective *tactical* reconnaissance at a speed commensurate to the capabilities of mechanized forces.

While this defect is serious for the fighting vehicles, it is far more disadvantageous in the case of the portée and fuel-supply elements of the command.

Without gasoline, machines are junk. The question of maintaining an adequate and timely supply of this priceless liquid will absolutely determine the mobility of mechanized forces. The shoe will begin to pinch on the second day. It seems to us that the difficulties which will be encountered will seriously limit widespread maneuvers of independent mechanical forces. In our own experience it was far more fatal than enemy fire.

The question of effecting battle reconnaissance for mechanized forces is extremely important. It is well to remember that the speed these monsters attain over the intimately known terrain of the maneuver areas will be materially reduced when they come to undertake independent operations in new country.

Except under circumstances so favorable as to be practically non-existent, machines cannot fight at night.

Finally, the battle command of mechanized forces offers tremendous and as yet unsolved difficulties.

The preceding analysis is in no way intended to detract from the

very real efficiency which mechanized units possess. In enumerating their difficulties we have but reverted to our "Block and hold" thesis.

It is by a vigorous and courageous understanding and utilization of these "Blocks" that Cavalry must devise means for combating machines. Only the unknown is feared.

In the first place, too much significance should not be attached to such expressions as: "Open country" and "Inclosed country." In all open country there are many inclosed areas; and in closed country there are numerous open patches. Think, for example, of how few places there are in the world, except target ranges, where one can see every foot of ground from zero to a thousand yards.

In combating mechanized forces Cavalry must begin with distant and wide reconnaissance. In this it should derive the maximum assistance from airplanes and armored cars. The units making this reconnaissance do not need to be very thick as armored forces are easily seen and heard.

When the force has been located Cavalry should move towards it in deployed columns, but must avoid head-on collision in the open. Wherever cover exists Cavalry should open fire with automatic weapons and cause itself to be attacked. It must of course avoid small isolated woods as in these it will be surrounded.

Extensive obstacles such as creeks, gullies and wooded draws should be held in force. At such places mechanized forces can be stopped. If they know their business, however, they will not attack but go around. The stationary gun is vastly superior to the moving one.

The speed and mobility of Cavalry, enabling it as it does to readily occupy and evacuate successive positions, renders it better suited to delaying mechanized forces than is any other arm.

While this delaying action is in progress, the Cavalry units on the flanks will close in and get behind the armored force across its line of supply.

With the advent of darkness Cavalry assumes the offensive.

Owing to their inability to fight at night in strange country, mechanized forces will close up at dark and go into a bivouac concealed from aerial attack. They are so weak in men that the outpost they establish will be very close in. Machines will be placed to sweep with fire all roads leading to the camp.

While it will be quite impossible for Cavalry to destroy such a bivouac, it can be very easily annoyed, harassed and injured by an active Cavalry breaking its rest, shelling its machines and assaulting

its outposts. In dry weather woods must be fired. The road in rear of it will be cut and all bridges on it destroyed or damaged.

In order to get up supplies convoys of armored machines must be used. The supplies so convoyed will be inadequate unless so many machines are used as materially to reduce the fighting force.

Of course the Cavalry will not get off scatheless. Sad to say no effective means of fighting without killing and getting killed has yet been invented.

In consideration of the foregoing it is our firm belief that the independent employment of mechanized forces is so largely illusory that it will never be seriously employed. Certainly not after a few trials.

The true medium of these forces is in the form of offensive reserves to be used in the final stages of a general battle to strike the decisive blow.

Airplanes: Throughout this paper stress has been laid on the advantages Cavalry will derive from the aid of friendly airplanes.

In considering the effects of air attacks on Cavalry, the following points are noteworthy:

Due to the variable speed of Cavalry and its ability to move via trails and across country with little heed to bridges, except at the larger rivers, it can split up its columns into relatively small march units and still be able to concentrate them at the desired point.

The mobility possessed by each individual of these little units enables them to disperse and reassemble rapidly in the event of air attack and so offer very poor targets.

The same characteristics permit Cavalry to disperse its bivouacs so that the effects of bombing attacks will be slight and highly localized. The days of nicely ordered Cavalry camps on the open sunny slopes of a hill are as defunct as the buffalo among whom they used to flourish.

The danger from air attacks will certainly force Cavalry to keep its led horses mobile and concealed.

The best block for enemy aviation is our own.

Supply: The details of cavalry supply have been skimmed just as the supplies will be. It is hoped that enough has been said to indicate the exceptional difficulties to be expected.

Cavalry usually operates in small units. It never is, or better it never should be, near the principle lines of supply save those of the enemy. The proper use of Cavalry may be epitomized to read: "In movement there is strength." It would be as foolish to hamper the movements of Cavalry by the attachment of heavy trains as it would

be to hitch a trailer to a racing car. Cavalry, to be useful in war, must be hungry Cavalry. It must eat where and how it can. De Bruck, one of Napoleon's officers, said that he had done eighteen campaigns in the Cavalry and had seen but one supply wagon, and that one upside down in a ditch.

Supply therefore will reduce itself to starving and foraging, interspersed with periods of plenty when some extemporised supply column is rushed through or when some future Mr. Commissary Banks is captured.

Cavalry wounded who cannot ride are out of luck unless the country people are merciful. Their graves' registrators will be the buzzards. In the words of the old song: "If you want to have a good time jine the Cavalry".



Cavalry—Infantry Maneuvers, 1930

By MAJOR JOHN B. COULTER, *General Staff Corps*

THE Cavalry—Infantry field maneuvers held in the vicinity of San Antonio, Texas, May 7-10, 1930, were the most instructive, it is believed, since the war in that they provided an opportunity for the arms of the service represented to operate against one another and, at the same time, demonstrate how each can assist the other in modern warfare.

The object of the maneuvers, as outlined by the Corps Area Commander, was to illustrate the employment of troops with present strength and equipment under all modern conditions of warfare in a sparsely settled country with poor communications. The underlying idea was that the maneuvers should be as free as possible, uncontrolled by special situations, except as might be necessary to keep the maneuvers within the limits of the territory over which permission had been obtained to operate. In addition to tactical situations and the necessary orders and actions on the part of the two commanders to meet these, it was hoped that the problems of supply, of ammunition, forage and rations would present special features.

Other special features which the Corps Area Commander hoped would be illustrated were:

a. The movement of regular troops toward the border; to cover concentrations and seize important bridgeheads while awaiting reinforcements.

b. The difficulty of supplying Cavalry by motor, pack and wagon transportation over forty miles of poor road, and the supply of Infantry, by truck and wagon, over thirty-five miles of poor road.

c. The use of only one road for movement and supply.

d. Reconnaissance by foot, horse and air by both sides, and probable reconnaissance in force.

e. The defense and forcing of river crossings.

f. The use of a motorized infantry battalion by Blue as well as motor transportation for all Blue foot troops.

g. A continuous maneuver from the declaration of war to the end of the maneuver.

h. The use of smoke.

i. The extent to which Infantry can be delayed by Cavalry.

j. Use of armored cars in very brushy country.

k. Use of attack and observation planes in the field.

l. Concealment from air reconnaissance.

m. Difficulty of night movements, except on main roads, in mes-

quite and cactus covered country and the difficulty of communication over such country.

n. Extreme difficulty of any movement in this country in case of wet weather. (The average rainfall for the month of May is 3.84".)

o. Radio communication with airplanes.

Terrain

The terrain over which the maneuvers would take place was varied in character and afforded quite diversified conditions for operations. North of the Frio River the area was generally flat, densely covered by high mesquite, and cut by many small streams and sloughs. The Charlotte-Fowlerton highway was a dirt road, fairly improved, but narrow. The bridges on this, as on all other roads in the area, were old and capable only of carrying medium loads. The other roads were of the same type, or poorer than the above so-called highway.

The Frio River formed a rather formidable obstacle, except at a few places. One bridge crossed the river just north of Fowlerton. All other crossings were fords and difficult of passage, especially by motors.

The country between the Frio and Los Angeles and for about ten miles directly south of the latter place was either under cultivation or was fenced, thereby restricting operations, to a great extent, to roads.

In the area between the Frio and Nueces Rivers little cover was available, except for small patches of low mesquite. These patches were far apart and afforded cover for only a limited number of troops.

One railroad ran through the area, as may be noted on Map No. 1.

Composition of Forces

The Blue force, under the command of Brigadier General Halstead Dorey, consisted of the 2d Infantry Division, less one infantry brigade and one battalion 23d Infantry; with six airplanes of the 12th Observation Squadron; twelve airplanes of the 3d Attack Group; one Platoon Troop A, 1st Armored Car Squadron; Company "C," 8th Engineer Battalion (mounted); and a detachment Chemical Warfare troops, attached.

The White force, under the command of Brigadier General Hamilton S. Hawkins, consisted of the 1st Cavalry Brigade, less the 1st Cavalry; with the 12th Cavalry; 2d Battalion, 15th Field Artillery; one platoon Troop A, 1st Armored Car Squadron; six airplanes of

the 12th Observation Squadron; twelve airplanes of the 3d Attack Group; Company "B," 8th Engineer Battalion (mounted); 5th and 6th Pack Trains; 83d Motor Repair Section, and a detachment Chemical Warfare troops, attached.

General Situation *

The general situation, and first special situations, (see Map No. 1) which brought the troops into the area of concentration, were as follows:

a. The NUECES RIVER forms a portion of the boundary line between states: BLUE (North) and WHITE (South).

b. War is imminent between the two countries and both are mobilizing, with concentrations of BLUE at SAN ANTONIO and WHITE at LAREDO.

c. It is known that BLUE has an infantry division, (less one infantry brigade and one engineer regiment) and one company of mounted engineers at FORT SAM HOUSTON, and that WHITE has a brigade of cavalry reinforced by a battalion of field artillery and a company of mounted engineers on, or south, of the line CARRIZO SPRINGS—ALICE. Each side is known to have observation and attack aviation and armored cars immediately available.

d. Both sides have reconnoitered the territory within their own boundaries.

Special Situation (Blue)

On May 1st, the Commanding General (Blue) received the following message from General Headquarters:

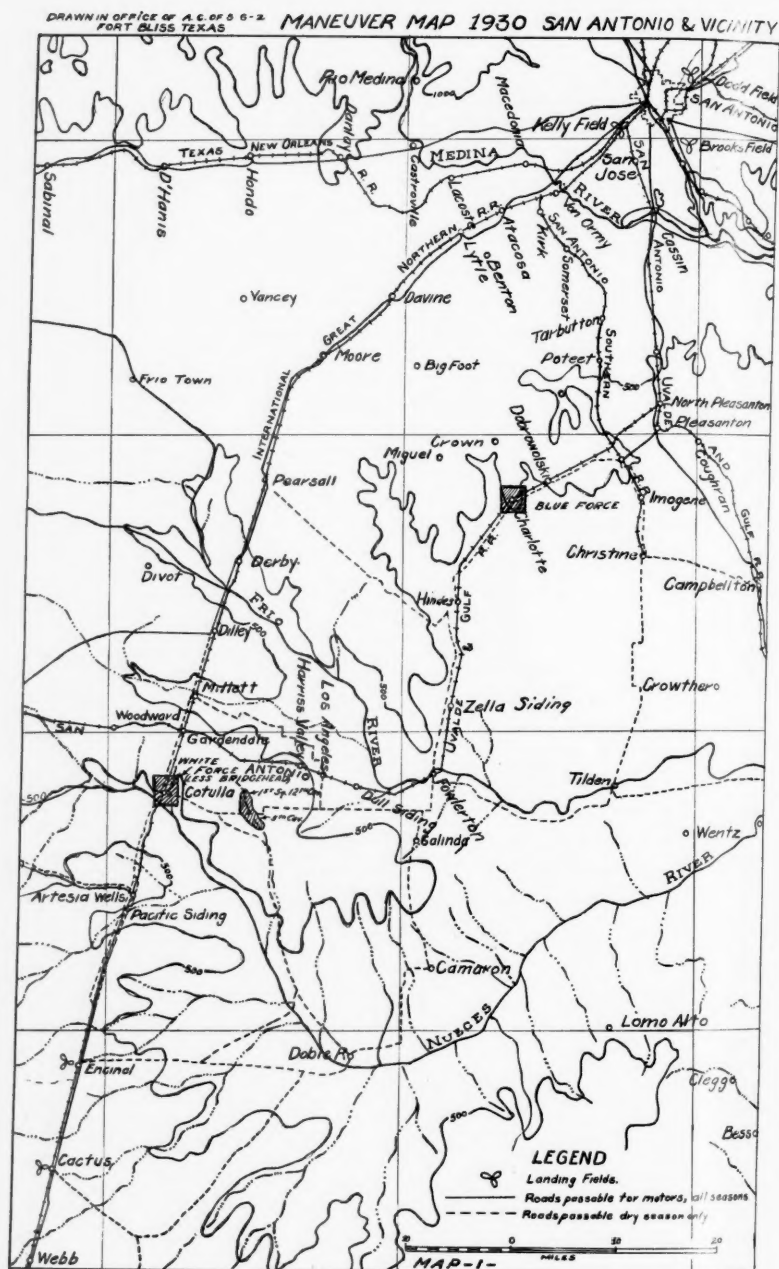
"You will assemble your command in the JOURDANTON-CHARLOTTE area by the evening of May 6th, 1930. Trucks available at FORT SAM HOUSTON, TEXAS, to transport the foot elements of your command. Observation and attack aviation will join you at FORT SAM HOUSTON, TEXAS, on May 5, and Company "C," 8th Engineer Battalion, will join you at CHARLOTTE, TEXAS, on May 6th.
(Signed) McCLEAVE."

Special Situation (White)

On April 25 1930, the Commanding General (White) received the following message from General Headquarters:

"The 12th Cavalry and 5th Pack Train now at FORT RINGGOLD and Company "B," 8th Engineer Battalion (mounted), now at FORT McINTOSH are attached to your command and the 1st Cavalry is re-

*See Map No. 1 for General and Special Situations.



Map No. 1

lieved therefrom, effective at once. You will assemble your command by the morning of May 6th in the vicinity of ENCINAL, with a strong advance force at the DOBIE and FORT EWELL crossings of the NUECES. The 2d Battalion, 15th Field Artillery, 83d Motor Repair Section and Observation and attack aviation will join you at ENCINAL on May 6th. (Signed) McCLEAVE."

Due to heavy rains and high water in the Nueces River the White plan was changed on May 3d as follows:

"1. Previous orders requiring you to concentrate in the vicinity of ENCINAL with an advance force at DOBIE and OLD FORT EWELL fords of the NUECES are revoked.

"2. You are hereby directed to concentrate your forces in the vicinity of COTULLA and base your operations on that place.

"3. Further instructions will be sent you within one or two days covering the changed situation.

"4. Modify your supply plans to meet the situation, but no additional funds can be furnished you."

The assembly of the White Force at Cotulla north of the Nueces River in Blue Territory constituted an act of war and on May 4, at 11:00 A. M., the following letter of instructions was issued to the Commanding General, White Force, at Cotulla:

"1. So far as can be determined Blue has not advanced in force down the SAN ANTONIO-COTULLA-LAREDO Highway; his advance parties are at PEARSALL. Reports indicate that another Blue force is moving south on the SAN ANTONIO-PLEASANTON Road.

"2. Our First White Division has crossed the NUECES at COTULLA and advanced to the crossing of the FRIO north of DILLEY. The Commander-in-Chief intends to utilize the flooded condition of the NUECES to prevent the southward advance of the enemy. He will utilize the First Division at the FRIO and your command to harry the enemy and delay his crossing of the FRIO River.

"3. You will hold yourself in readiness to move to seize the crossing of the FRIO at FOWLERTON with a view to delaying the enemy in his approach to and crossing of the FRIO.

"4. It will be necessary for you at once to locate suitable landing fields for your aviation in the neighborhood of COTULLA or elsewhere."

f. Following this, instructions were issued to the Commanding General of the Blue 2d Division, at 10:00 A. M., on May 5th:

"1. White has declared war and coincidentally has crossed the frontier in the neighborhood of COTULLA.

"A considerable force has advanced up the LAREDO-COTULLA-SAN ANTONIO Road and is holding the crossing of the FRIO.

"Judging from the enemy's aggressive attitude, flanking movements to the right and left of his main advance are to be anticipated, and it is probable that the columns involved will have to cross the NUECES at COTULLA, in view of the flooded condition of that river.

"2. Our main force approaching from the north has been delayed by heavy rains and washouts, and consequently our advance southward in force will be delayed.

"The VIII Corps has advanced parties as far south as PEARSALL on the LAREDO-COTULLA-SAN ANTONIO Road.

"3. Until our reinforcements arrive and until further information is obtained as to the enemy's intentions, you will take a position in readiness in the general vicinity of CHARLOTTE, prepared to advance either to the west or the south to protect the flank of our main advance over the SAN ANTONIO-COTULLA-LAREDO Highway."

The White force was concentrated at Cotulla on May 4. The Blue concentration was complete at Charlotte on May 6. In view of the fact that the crossing of the border by the White Force was tantamount to a declaration of war, the air corps of the two forces were made available at this time for such use as the two commanders desired to make thereof.

The Maneuvers

The maneuvers opened at 6:00 P. M. May 7th, by the issuance of the following missions to the Blue and White force commanders:

Blue

"1. WHITE is holding a bridgehead at the crossing of the FRIO RIVER by main highway SAN ANTONIO-COTULLA-LAREDO, and has considerable force in the vicinity of COTULLA.

"2. Our reinforcements have arrived in SAN ANTONIO and the VIII Corps will proceed at once with its main axis on the SAN ANTONIO-COTULLA-LAREDO highway to effect a crossing of the FRIO RIVER and to proceed to the attack of the COTULLA crossing of the NUECES.

"3. You will proceed to cover the left flank of our main advance, seizing the crossings of the FRIO at and near FOWLERTON and driving back any enemy force attempting to approach and cross in that vicinity.

"Since our main force is believed to be greatly superior to that of the enemy it is anticipated that we will not be long delayed in reaching the NUECES at COTULLA and cutting off any enemy force to the east, relying upon the bridge there for its crossing of the NUECES."

White

"1. Up to noon today information as to the enemy indicates that his main strength is between PEARSALL and SAN ANTONIO along the general line of the SAN ANTONIO-COTULLA-LAREDO highway and that he has flanking force in the general neighborhood of CHARLOTTE.

"2. Our first WHITE Division is still holding the crossings of the FRIO north of DILLEY. A bridgehead has been established to cover the crossing of the NUECES at COTULLA.

"3. You will proceed to cover our right flank, seizing the crossings of the FRIO at and near FOWLERTON and harassing and delaying any enemy force attempting to approach and cross in that vicinity.

"4. Before leaving COTULLA you should make all preliminary plans for shifting your supply base to old FORT EWELL or DOBIE FORD in case you should become cut off from COTULLA."

(Locations of opposing forces at the opening of the maneuvers were as shown on Map No. 1.)

Blue Operations to Include Midnight, May 7th

Upon receipt of his mission, the Blue Commander directed one battalion of Infantry and one battery of the 12th Field Artillery, with one day's rations, completely motorized and covered by armored cars, to move without delay on Fowlerton with the mission of seizing that place and forming a bridgehead south of the Frio River pending the arrival of the remainder of the Blue force. This command moved at 6:30 P. M. and twelve miles south of Charlotte the leading trucks broke through a bridge. This bridge was repaired in one and one-half hours and the column resumed its march.

Heavy sand was encountered just south of Hindes and another bridge went out about two miles south of Hindes, causing the commander to start forward a detachment of Infantry (about thirty-five in strength) with a section of machine guns to secure Zella Siding until the remainder of the column could resume its march. This detachment gained contact with the leading element of the White Force (Troop "E," 5th Cavalry, reinforced by one section of Machine Guns, and detachment Chemical Warfare troops) about six hundred yards south of Zella Siding at 11:30 P. M., and after being attacked three separate times by the cavalry force, the Chief Umpire halted the forward movement of the opposing forces.

White Operations to Include Midnight, May 7, 1930

At 6:00 P. M., May 7th, the White Force had the 5th Cavalry, with one squadron of the 12th Cavalry attached, forming a bridgehead

about nine miles east of Cotulla on the Cotulla-Fowlerton Highway.

These troops were observed by the Blue air force moving to this position on the afternoon of May 6th, but by excellent use of the cover in the vicinity of its bivouac was practically hidden from view of air observation throughout the 7th of May, causing concern to the Blues as to the whereabouts of particularly one squadron, as stated by the Blue Commander.

Upon receipt of his mission, the White Commander ordered the 5th Cavalry to march without delay, seize Fowlerton and move on Esperanza Creek (seven miles north of Fowlerton), delaying the advance of the Blues on Fowlerton.

The 1st Squadron, 12th Cavalry, was directed to march at once (via Los Angeles and the fords over the Frio River, generally northeast of Los Angeles), on the Hindes road crossing of the Esperanza Creek to delay the advance of any Blue troops attempting to move on Los Angeles.

The Armored Car platoon was directed to move at once via Los Angeles and the fords over the Frio River, generally northeast of Los Angeles, to destroy the bridges on the Fowlerton-Charlotte road over the Esperanza Creek, to destroy the bridges in the vicinity of Hindes and to cover the roads west of the Fowlerton-Hindes road as far north as Hindes.

The 1st Cavalry Brigade Headquarters, the 12th Cavalry, less 1st Squadron (Colonel Daniel Van Voorhis commanding) and the 2d Battalion, 15th Field Artillery (Major L. R. Dougherty commanding) were ordered to move initially to the Los Angeles road intersection with the Cotulla-Fowlerton Highway, where further instructions would be issued, dependent upon the successful crossing of the Frio River at Fowlerton by the 5th Cavalry.

Troop E, 5th Cavalry, with one section of Machine Guns and a detachment of Chemical Warfare Troops attached, left the regimental bivouac at 7:00 p. m. and reached Fowlerton (23 miles distant), at 9:50 p. m.; or in two hours and fifty minutes; it gained contact with the leading element of the Blue force, 600 yards south of Zella Siding (seven miles north of Fowlerton) at about 1:30 p. m.

As the mission of this troop was to seize Zella Siding, the troop commander twice moved to out-flank the infantry detachment south of Zella Siding; but as he gained the flank and rear of the Blue position, the Chief Umpire ruled his command back and declared that neither the Blue nor White forces could advance further.

The 5th Cavalry, less Troop E, and detachments (Colonel S. F. Dallam commanding), marched at the rate of six miles per hour and

had gained the Esperanza Creek by 11:35 p. m., where it prepared for the defense of the south bank during the remainder of the night of May 7-8.

The armored cars gained the Fowlerton-Charlotte Highway, placarded the bridges over the Esperanza Creek and north thereof as destroyed and withdrew to the east to cover the roads to the southwest of Hindes.

The brigade commander, upon reaching the road intersection, three miles south of Los Angeles, and learning that the 5th Cavalry had gained its objective, directed the 12th Cavalry, less the 1st Squadron, to cross the Frio River, and from the vicinity of J. Martin's cover the gap between the 5th Cavalry and the 1st Squadron, 12th Cavalry; and to harass the Blue Force in right flank.

The Artillery was directed to move to a position just south of Fowlerton to support the 5th Cavalry in its delaying action against the Blues.

The operations this date were particularly outstanding in that the Cavalry moved an approximate distance of thirty miles, under cover of darkness and over unfamiliar roads, in about four and one-half hours and arrived with its animals, pack equipment and light wagons closed up and ready for immediate operations against the Blue Force.

On the morning of May 8th the Blue and White Commanders received the following missions:

Blue

"1. Our VIII Corps has advanced, driven the enemy south of the FRIO in the Vicinity of DILLEY and is steadily forcing his troops back on the crossings of the NUECES at COTULLA.

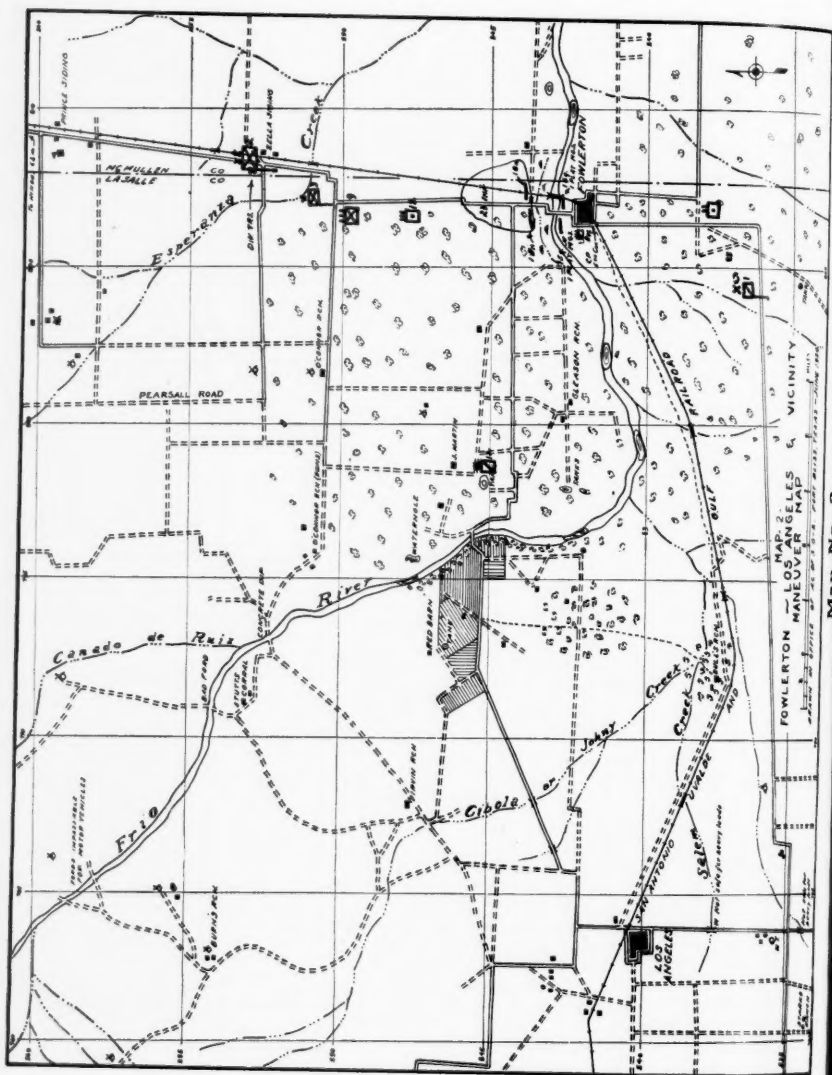
"2. Due to this retirement of the WHITE troops along the main SAN ANTONIO-LAREDO highway, our air service reports that the WHITE FORCES along the FOWLERTON-ZELLA-HINDES Road are beginning to retire south of the FRIO at FOWLERTON.

"3. As soon as the bridges in the vicinity of HINDES have been repaired and your troops have been given a reasonable rest you will resume the advance and force the crossings of the FRIO in the vicinity of FOWLERTON."

White

"1. The BLUE troops on our front have attacked and our advanced forces in the vicinity of PEARSALL are retiring behind the NUECES at COTULLA.

"2. You will withdraw at once from your present position and



take up a position south of the Frio at FOWLERTON covering the crossings of the river in that immediate vicinity.

"3. In case our main forces on the LAREDO-COTULLA highway are driven further back, you will be prepared for a further retirement either to the south or southwest as circumstances may dictate."

Blue Operations on May 8th

The Blue force spent May 8th moving into position to force a crossing of the Frio River in the vicinity of Fowlerton, and bringing up their trucks and animal-drawn transportation. On the evening of May 8th the 23d Infantry had two battalions in line astride the Zella-Fowlerton road, in front of Fowlerton. The 9th Infantry was near the Pearsall-Fowlerton road junction in division reserve.

The 12th Field Artillery was in support of the 23d Infantry. The Division Headquarters and the divisional troops were in the vicinity of Zella Siding.

The 2d Tank Company encountered heavy roads and bad bridges near Hindes and never reached a point further south thereof during the maneuvers.

The Blue air force executed observation missions over White territory through the 7th and 8th and made several ground attacks on White installations.

White Operations on May 8th

In accordance with orders, the 5th Cavalry withdrew during the forenoon of May 8th to the south bank of the Frio in the vicinity of Fowlerton, where it began its defense of the river line with squadrons abreast and with one platoon in regimental reserve. The 2d Battalion, 15th Field Artillery, in position approximately 2500 yards south of the river, supported the 5th Cavalry. Colonel Van Voorhis, in command of the 12th Cavalry (less 1st Squadron and detachments) ordered saddle packs, forage and rations, and kitchen and picketline packs, cached under cover near J. Martin and marched his command at 9:30 A. M. toward O'Connor's Ranch. His reconnaissance patrols had been active since dawn.

At 2:10 P. M. his advance guard encountered what was apparently an infantry flank guard about $1\frac{1}{2}$ miles east of O'Connor's Ranch consisting of one company of Infantry with machine guns. After reinforcing his advanced guard by automatic weapons he initiated a flanking movement through high mesquite. This movement caught another company with machine guns in the act of detrucking with the result that the 12th Cavalry was awarded the capture of

FOWLERTON MANEUVER MAP & VICINITY
 Map No. 2

two companies of Infantry, 3 trucks, 4 machine guns, and the armored car which was convoying the entrucked Infantry. He then withdrew to J. Martin Ranch. His losses this day were one officer's reconnaissance patrol captured.

At J. Martin Ranch he united with his 1st Squadron which had marched there from Sutt's Ford on orders from Brigade headquarters, and the entire regiment rested there during the night of May 8-9.

In the past 24 hours the 12th Cavalry had marched over fifty miles, not counting the additional distance covered by reconnaissance patrols.

The White air force executed observation missions over the Blue troops throughout the day and made seven attacks on Blue massed troops and transport on the road and on the hostile airdrome.

(Dispositions of opposing forces on the evening of May 8th were as shown on Map No. 2.)

At 7:30 A. M., May 9th, the Corps Area Commander issued the following additional instructions:

Blue

"1. Our main force on the SAN ANTONIO-COTULLA-LAREDO Highway has succeeded in crossing the FRIIO but its further progress has been checked.

"2. The enemy's main body is vigorously resisting our advance on COTULLA but our forces are outflanking on both flanks and it is anticipated that within the next 48 hours he will be driven across the NUECES at COTULLA.

"3. It is important for you to defeat the enemy in your front and advance to threaten enemy communications in the direction of ENCINAL."

White

"1. The enemy's main force has driven our forces across the FRIIO and while we are still holding him off, it is probable that he will, within the next two or three days, force our withdrawal across the NUECES at COTULLA.

"2. You should delay the flanking forces in your front as much as possible at the fords of the FRIIO near FOWLERTON and make arrangements at once for falling back on the fords of the NUECES at DOBIE RANCH and OLD FORT EWELL, delaying him as you retire."

Blue Operations to Include the Morning of May 10th

At 11:00 A. M., May 9th, the Blue force began its movement on the fords northeast of Los Angeles in three columns, with the plan of

crossing the Frio River, seizing Los Angeles, and using the latter place as a base for further operations to the south, instead of attacking the cavalry force at Fowlerton, as was expected.

The motorized column, consisting of one battalion of the 23d Infantry, covered by two armored cars, moved on the West Ford (concrete dip) road. The center column, consisting of the 9th Infantry (less one battalion), four batteries of artillery, and divisional troops (Infantry in trucks) moved on the ford west of J. Martin, and the south column, consisting of the 23d Infantry (less two battalions), moved on the east and west road just north of the Frio River.

Contact was gained just east of the ford over the Frio River on the Zella-Los Angeles Road with the 12th Cavalry at about 2:00 P. M. By 3:15 P. M. the 9th Infantry had gained the southwest bank of the Frio and as it prepared to attack the second delaying position of the 12th Cavalry, 1000 yards west of the river, the Chief Umpire caused the Infantry to assemble on the road (due to cultivated ground), gave the Cavalry twenty minutes to withdraw and the Infantry thirty minutes to assemble before it could resume its advance.

Upon resumption of the advance, the Infantry learned that the entire 12th Cavalry had withdrawn to its left flank. Covering detachments were then thrown out; the troops were fed and trucks brought across the ford. By 11:00 P. M. enough trucks were on the southwest side of the Frio to entruck the leading infantry battalion in its advance on Los Angeles (seven miles distance). By 3:00 A. M., May 10th, sufficient transport had been brought across the ford to move all troops which were to advance on Los Angeles.

The movement on Los Angeles was preceded by a mounted detachment from the 9th Infantry, the majority of which was captured by the leading element of the 5th Cavalry, which had taken position astride the Los Angeles road, one mile north of the latter place, to cover the position of the 5th Cavalry. The leading infantry battalion attacked the 5th Cavalry position at 2:00 A. M. but was repulsed.

White Operations to Include May 10th

Contact was gained between the Blue leading elements moving west on the Zella-Los Angeles road and the 12th Cavalry east of the ford near J. Martin at about 12:00 o'clock, noon. The 1st Squadron of the 12th Cavalry, after delaying the Blues in four successive positions, withdrew from its delaying position east of the river about 3:00 P. M., covered by the remainder of the regiment, and occupied a delaying position astride the Los Angeles road about 1000 yards west of the river. The 1st Squadron was later joined by the remainder of the regiment on this position.

When the leading battalion of the 9th Infantry deployed to attack the delaying position west of the Frio and the 12th Cavalry was preparing to withdraw, the Chief Umpire ruled (due to cultivated fields over which troops could not operate) that the 12th Cavalry must withdraw in twenty minutes and the leading battalion of the 9th Infantry must assemble on the road and not resume its advance for thirty minutes.

The 12th Cavalry, executing the original order of the brigade commander, withdrew four miles direct to the south (left flank of the infantry column) to Dull's ranch, where the regiment expected its rations and forage to arrive after dark May 9th.

Upon learning of the situation, the White brigade commander ordered the 5th Cavalry, (less one squadron), to march from Fowlerton on Los Angeles, via the railroad to delay the advance of the Blues on Los Angeles. (This force left Fowlerton at 5:30 P. M.) He further ordered the 12th Cavalry to remain at Dull's ranch during the night of May 9-10, prepared to make a flank attack on the Blue force at dawn, May 10th. The brigade headquarters was moved to the road intersection of the Los Angeles and Fowlerton-Cotulla roads, and the new command post was established by 10:00 P. M.

The 5th Cavalry, (less one squadron), reached Los Angeles about 8:55 P. M., where it immediately occupied a delaying position astride the Los Angeles-Zella road immediately north of Los Angeles, with Troop F about one mile in advance of the position. Troop B, 5th Cavalry, left Fowlerton at 11:30 P. M. and joined its regiment before dawn of May 10th.

The plan of the White brigade commander was to have the 5th Cavalry, (less one troop), delay the advance of the Blue force south of Los Angeles and at dawn May 10th, to send the 12th Cavalry via the road over which it had withdrawn the afternoon before, and strike the Blue force in left flank and rear.

Troop F, 5th Cavalry, encountered the leading infantry battalion (motorized, with a dismounted advance guard) about midnight May 9-10, three miles north of Los Angeles.

This troop withdrew slowly in front of the attack of the Infantry and reached Los Angeles about 1:30 A. M. At 2:00 A. M. this battalion attacked the position of the 5th Cavalry (less one squadron) supported by the 2d Battalion, 15th Field Artillery, at Los Angeles. This attack was repulsed by 3:00 A. M., with a loss to the Infantry one company, ruled out of action by umpires, and twenty prisoners. A number of led-horses of the 5th Cavalry were also ruled out.

The Blues launched a coordinated attack against the 5th Cav-

alry (less Troop A) position at Los Angeles at dawn, May 10th, with three infantry battalions, supported by the 12th Field Artillery.

As the 5th Cavalry began its withdrawal to the next delaying position, two miles south of Los Angeles, by squadron, and orders were on the way for the 12th Cavalry (two miles to the southeast of Los Angeles) to attack the Infantry in left flank and rear, the maneuvers were terminated by the Corps Area Commander.

(The locations of the opposing forces at the termination of the maneuvers were as shown on Map No. 3).

The Blue and White forces thereupon assembled at Los Angeles, where they remained until the return march for home stations began on May 11th.

Critique

In the critique following the maneuvers, two significant statements were made by the Corps Area Commander: the first, "The Cavalry accomplished its mission," and second: "The Cavalry has demonstrated its historic mobility and modern fire power."

General Hawkins demonstrated the mobility of his command on the evening of May 7th, when it moved from the vicinity of Cotulla to the point of contact with the Blues, north of Fowlerton, and in the concentration of the White force in front of the Blues near Los Angeles during the night of May 9-10.

The fire power of the cavalry regiment was illustrated, both by the 12th Cavalry in its delaying action east of the J. Martin ford, and by the 5th Cavalry in front of Los Angeles.

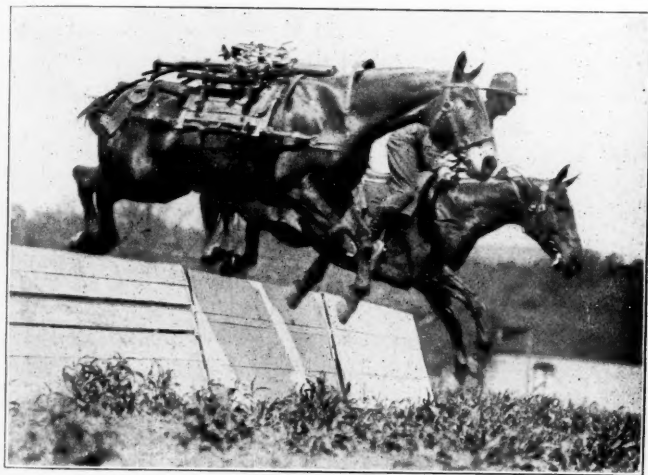
The maneuvers were terminated on terrain which offered the best opportunity for cavalry employment. While the reasons for the termination of the maneuver were fully appreciated, it was a disappointment to the cavalymen that they were not continued and opportunity given for the further application of cavalry tactics: the test of communications, supply, and of other subjects constantly under consideration by the cavalry arm.

The maneuvers furnished an unusual opportunity for the thinking and professionally interested officers of all branches to visualize what part each element of our army must play in modern war; how necessary it is that one arm should thoroughly understand the powers and limitations of the other arm; and how each can be employed best and so provide the essential team work on the battle field.

It is particularly unfortunate that all cavalry officers could not have participated in, or at least observed the maneuvers. The masterly handling of Cavalry by Brigadier General Hawkins was not only

a convincing proof of the soundness of the cavalry doctrine of employment, as taught at the Cavalry School and the Special Service Schools, but furnished an impressive example of the power of Cavalry in modern warfare.

In conclusion, the maneuvers clearly demonstrated that any force of Infantry of appreciable size must be accompanied by its own Cavalry, when confronted by hostile Cavalry. Else the constant necessity for deployment, the waste occasioned by close-in defense, and the continuing delay will be sufficient, as it was in this case, to impair seriously the accomplishment of the mission of the dismounted force.



The Cavalry Combat at Jaroslavice

By COLONEL EMIL VIDALE, *Retired, Austrian Army*

The following article presents valuable material for critical study of the handling of large cavalry forces, covering army concentration areas, prior to contact with the enemy and in combat. THE CAVALRY JOURNAL in the issues of January, April and June, 1923, and April, 1927, published articles on this great cavalry encounter (known as "Volchkovtsy" in Russian) by General N. N. Golovine of the Russian Army. The present article presents the situation and action from the Austrian viewpoint. The author, Colonel Emil Vidale, Retired, of the Austrian Army, took an important part in the battle as a major in the 4th Cavalry Division. We are fortunate in being able to complete the story of the battle and events leading up to it by presenting this detailed account which is the fruit of years of study of the official records and of the author's personal observation of the fight.

Due to its length the article will be published in two parts, concluding in the October issue.—EDITOR.

NEARLY sixteen years have elapsed since Austrian and Russian riders met in a combat on horseback on the fields between Jaroslavice and Wolczkowce. Both had sought the encounter, both had endeavored to bring on the decision, not by a protracted struggle for superiority of fire or for local advantage, but by the true weapons of the cavalrman, the sword and the lance.

The experiences of the Boer war and of the Manchurian campaign, however, had forced the Cavalry to revise many previous views. The influence of modern technique upon warfare and upon the course of battles had been fully comprehended, and fighting dismounted was practised more from a sense of duty than from enthusiasm. But in the armies of all the belligerent countries the conviction had remained that in a future war the task devolving upon the Cavalry would be solved by combat on horseback. Fighting dismounted was regarded as a necessity—often to be expected—to which one was prepared to have recourse when ground and tactical exigencies should make impossible the genuine horsemanlike action, namely, the charge. We were educated in the firm belief in its prime importance and with this belief we went to war.

The World War has taught us that we were mistaken. Its history reports only one case of an encounter between two large bodies of mounted Cavalry. It was near Jaroslavice where, on the 21st of August, 1914, the ground trembled under the hoofs of more than three thousand horses, when Austrian and Russian regiments rushed to meet each other in combat.

The encounter at Jaroslavice, or, as the Russians call it, the "Fight at Volchkovtsy," has remained unique in this greatest of all wars. It

is therefore not to be wondered at that it has already been mentioned in war literature. Field Marshal Conrad, since deceased, mentions the affair in his memoirs. Short descriptions are to be found also in the "Oesterreichische Wehrzeitung" and in the German "Wissen und Wehr." Being sure, therefore, that the exploits of our dragoons and uhlan on the 21st of August, 1914, would not fall into oblivion, I was nevertheless surprised, on the occasion of my researches into the history of the conflict, to meet with a series of articles in THE CAVALRY JOURNAL* which represents the best—and from a military point of view the most valuable—report of this event, so memorable in the history of Cavalry. The author is the Russian Lieutenant General Golovine. In a highly attractive manner he unrolls the picture of the bloody day and shows by it the influence of modern weapons on the tactical practice of Cavalry. He does justice to the enemy and finds words of highest appreciation for the courage of the Austrian commander, General von Zarembo, and also, in part, for our troops. Thus he follows the example of his Russian comrade, our chivalrous adversary in this combat, Lieutenant General Count Keller, commander of the 10th Cavalry Division, who said on the evening of the same day to one of our officers, who was wounded and taken prisoner like myself, "Your men have fought like lions."

If, in General Golovine's account the lights on the Russian side appear more radiant and the shadows on the Austrian more darksome, he cannot be reproached. What soldier's pen would not be winged with satisfaction and pride, when it describes a success of his own army?

More difficult and less gratifying is the task of him who sets about writing the story of a defeat of his troops. It was a disastrous day, a true *dies nefastus* for the Austrian 4th Cavalry Division, this 21st of August. I do not say so for the purpose of palliating blunders. Certainly mistakes were committed, as well by the higher commands as by patrols. But also on the Russian side the arrangements on this day do not show a harmonious picture. Count Keller's daring spirit and brilliant initiative contrasts strongly with the hesitating clumsiness of Lieutenant General Prince Begildejew, commander of the 9th Cavalry Division and highest commanding general on the Russian side during the combat. It may be said that Count Keller's squadrons obtained the victory, not owing to, but in spite of the management of the Russian supreme command.

*THE CAVALRY JOURNAL.—January, 1923: Cavalry Fight at the Village Volchkovtsy on August 21st, 1914; April, 1923: The Fourth Austrian Cavalry Division in the Fight at Volchkovtsy, August 21st, 1914; June, 1923: The Cavalry Fight; Lessons from the Fight at Volchkovtsy; April, 1927: The Fight at Volchkovtsy. By General N. N. Golovine, translated by Colonel A. M. Nikolaieff.

I. General Situation at Beginning of the War

The 4th Cavalry Division and the 35th Landwehr Infantry Regiment were occupied with the frontier protection from the first day of alarm, the second of August.* The mission of the units designed for this service was to conceal and to secure the concentration of their own armies and, beginning with the first day of war (the 6th of August) also the reconnoitering of the enemy. This service had become very toilsome and exhausting for the 4th Cavalry Division. The space assigned to it had a front of sixty kilometers (fifty kilometers air line). The task of covering involved hindering hostile units from reconnoitering the movements of our troops in the concentration areas and included also the protection of important objects (buildings, railroads, etc.) from enemy attempts to destroy them. As is well known, persons and also troops not accustomed to war are prone to overrate the strength of hostile forces. So it happened often that from the frontier guards, consisting of gendarmerie, customs officers, and militiamen, and also from frightened peasants and Jews, arrived reports that caused repeated and hasty movements of the division or of parts of it. For the most part the reported strong enemy forces were revealed as some sotnias (troops) of Cossacks or as patrols even, if they had not preferred to take to their heels before our troops had reached the place. On the 15th was the beginning of the distant reconnaissance which involved, of course, considerable marching. The results gained accorded by no means with the wearing-out of the horses caused by these marches. A discussion here of the breeding and training of the cavalry horse is a subject beyond the scope of this article. Here it may be said only, that the previous long period of peace had brought forth a sort of hyper-refined aesthetics in riding that were of no advantage for military purposes. Also the equipment of the cavalry soldier and the saddle and harness of the horse did not correspond with the exigencies of war. The clumsy and bulky saddle transferred the whole weight of the rider, including his weapons and outfit, to the horse's back by means of two narrow wooden blades. Even in the maneuvers in peace time it was not possible to avoid entirely sores caused by the constant pressure of these blades upon the horse's back, though saddle fitting had grown to artistic perfection in the Austrian Cavalry. In the war, this perfection being illusory in consequence of the changing condition of horses and the want of sufficient reserve saddles, the number of such sores

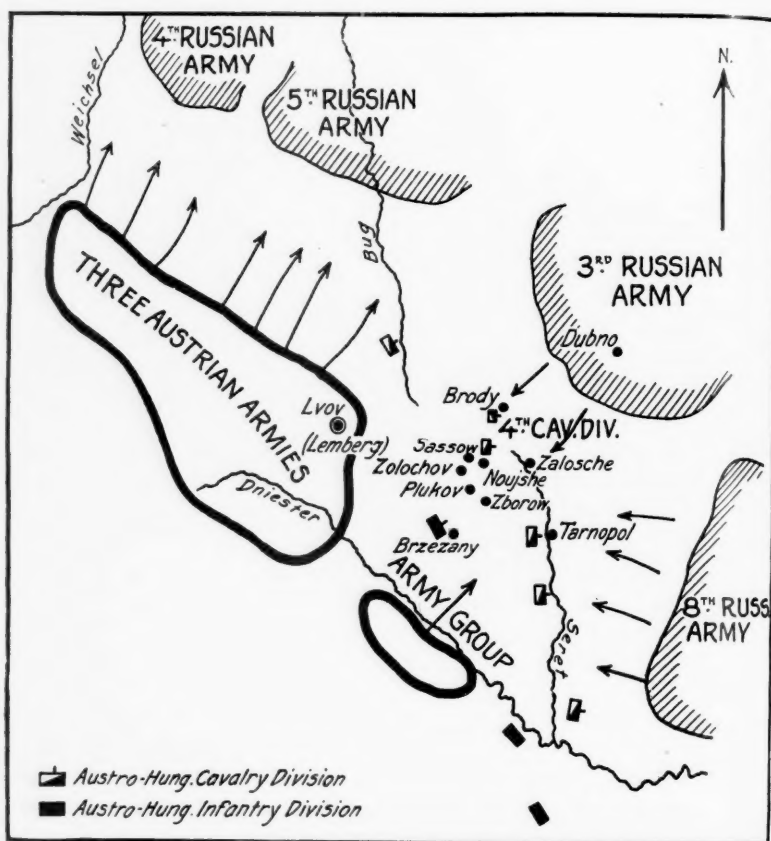
*The first day of mobilization was the 4th of August, 1914. But the whole Cavalry, Horse Artillery, and some battalions of Infantry of the 1st, Xth and XIth corps, stationed in Galicia had the "Alarm designation," which means, these units had to start some hours after the "Alarm order" with peace strength for the purpose of frontier protection, and had to await their completion to war strength in these regions.



Austrian Trooper With Field Equipment, 1914

increased in a threatening way. I remember that I returned from a reconnoitering raid I had undertaken from the 8th to the 10th of August across the frontier toward Nw. Poczajew with about 160 uhlans, with thirty horses disabled principally in consequence of such sores; an appalling result considering that the longest distance on one day was no more than sixty kilometers (patrols approximately eighty kilometers).

Since the 16th of August the 4th Cavalry Division had been billeted in the villages of Lasowiki—Suchowola—Buczyna, southeast of Brody. From this region it had made a raid to Kapanie, ending with a short fire action. Except for some patrols and two reconnoitering detachments, the troops of the division had on this occasion come



Sketch No. 1. Austrian and Russian Concentration Areas

in contact with the enemy for the first time. There had been quite insignificant casualties up to this time. Nevertheless the regiments were worn out and had already lost ten to fifteen percent of their prescribed number of horses by sores and injuries to the legs. Now, in the cantonments, the utmost was done to heal all these injuries. Saddles were changed or adapted by filing with rasps and pieces of broken glass to make them fit the emaciated horses, sore backs treated with compresses and lost nails restored. Zealous captains and old sergeants, who had grown gray in many years of service, carefully examined the hurts their quadruped proteges had suffered in this first period of war, which had lasted only three weeks, and even they could be satisfied in seeing the eagerness which officers and troopers displayed in this simple but important work. Everybody knew that

such work was absolutely necessary, if we would regain full fitness for the struggle with an enemy that had hitherto continually avoided combat. For this combat all our troops longed: our Ruthenian uhlans as well as the dragoons of the 15th Regiment from Lower Austria, and the Rumanians of the 9th Regiment of dragoons, not less than the Polish uhlans of the 1st Regiment, and the gunners of the 11th Horse Artillery Division. It was a perfect example of the old Imperial Army, this 4th Cavalry Division. In the Austrian parliament the deputies of the different nations oftentimes quarrelled. Here were the sons of four nations, obeying *one* command and united by the strong feeling of membership in the common army and in the self-reliance of the Austrian cavalryman based on a great tradition that caused them to believe in their own superiority over every possible adversary. This feeling of superiority was increased by the perception that the enemy patrols and reconnoitering groups had until this time, always given way and had carefully avoided an engagement with the *arme blanche*. Officers and men burnt with impatience to prove this superiority in an encounter.

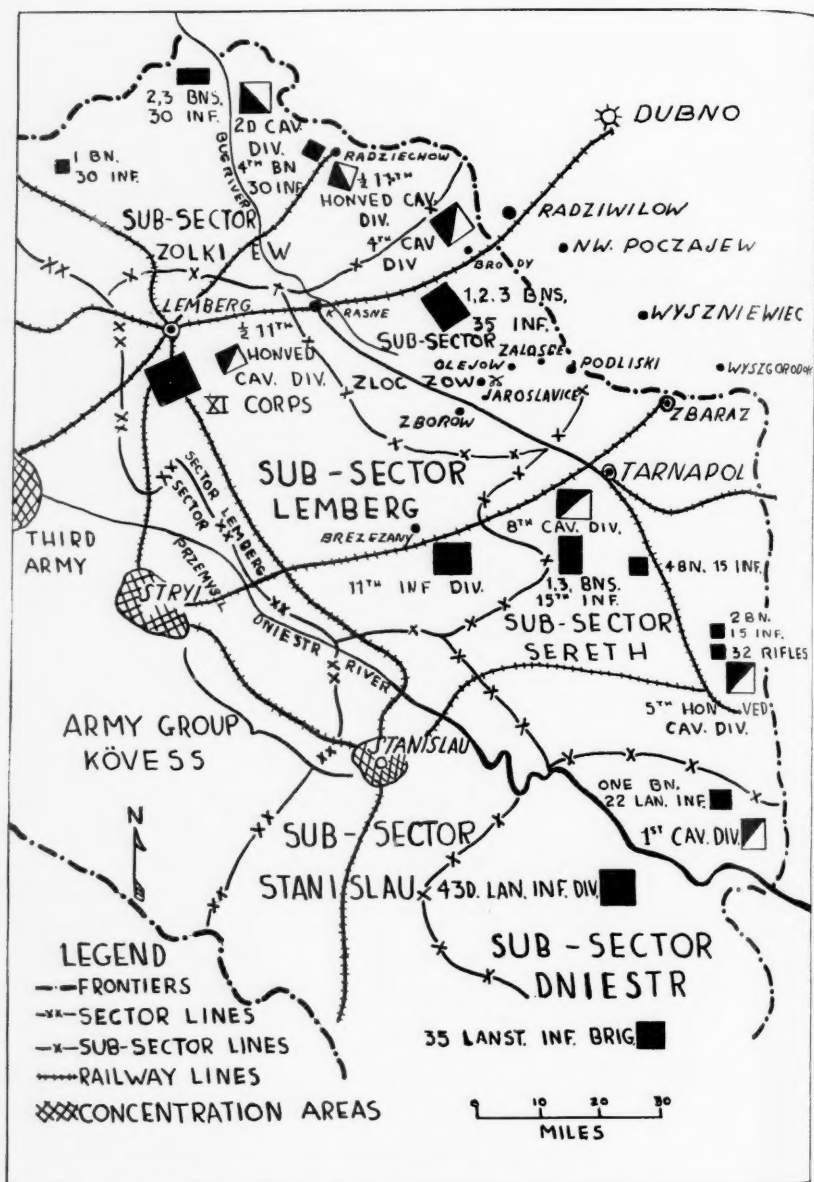
Thus the spirit of the troops was self-confident and daring. Everybody longed for the moment of meeting with the enemy in combat on horseback.

II. Results of Reconnoitering and Situation up to the Evening of the 20th of August

The Third Army (General der Kavallerie von Brudermann) had taken command of the subsectors Zolkiew and Zloczow and of the troops of the XI Corps and the 11th Honved Cavalry Division billeting in and near Lemberg on the 11th of August. The troops of the subsector Zloczow, the 4th Cavalry Division and the 35th Landwehr Infantry Regiment*, formerly belonging to the XI Corps, received their orders thereafter through this corps, while the Third Army commanded the 2d Cavalry Division and the $\frac{1}{2}$ 11th Honved Cavalry Division of the subsector Zolkiew directly. The Army Group Kövess† (afterwards Second Army), whose main body was concentrating at Stryi

*The Austro-Hungarian forces in the field, here simply called Austrian for the sake of brevity, consisted of the common army, recruited from the Austrian and the Hungarian half of the monarchy; the Landwehr, recruited only from the Austrian part, and the Honved, recruited only from the Hungarian part. Both the latter were troops of the first line and equivalent to the common army. The troops of the second line (*militia, levée en masse*) were called Landsturm.

†It was an often employed usage to denote units by the name of their commanders, e.g., the 4th Cavalry Division, commanded by Major General von Zarembo, was called Cavalry Division Zarembo. Especially this nomenclature was made use of, if units which were not in a definitely organized connection stood under a common command, e.g., Army Group Kövess means all troops standing under command of the General der Infanterie von Kövess.



Sketch No. 2. Austrian Frontier Guards and Covering Troops

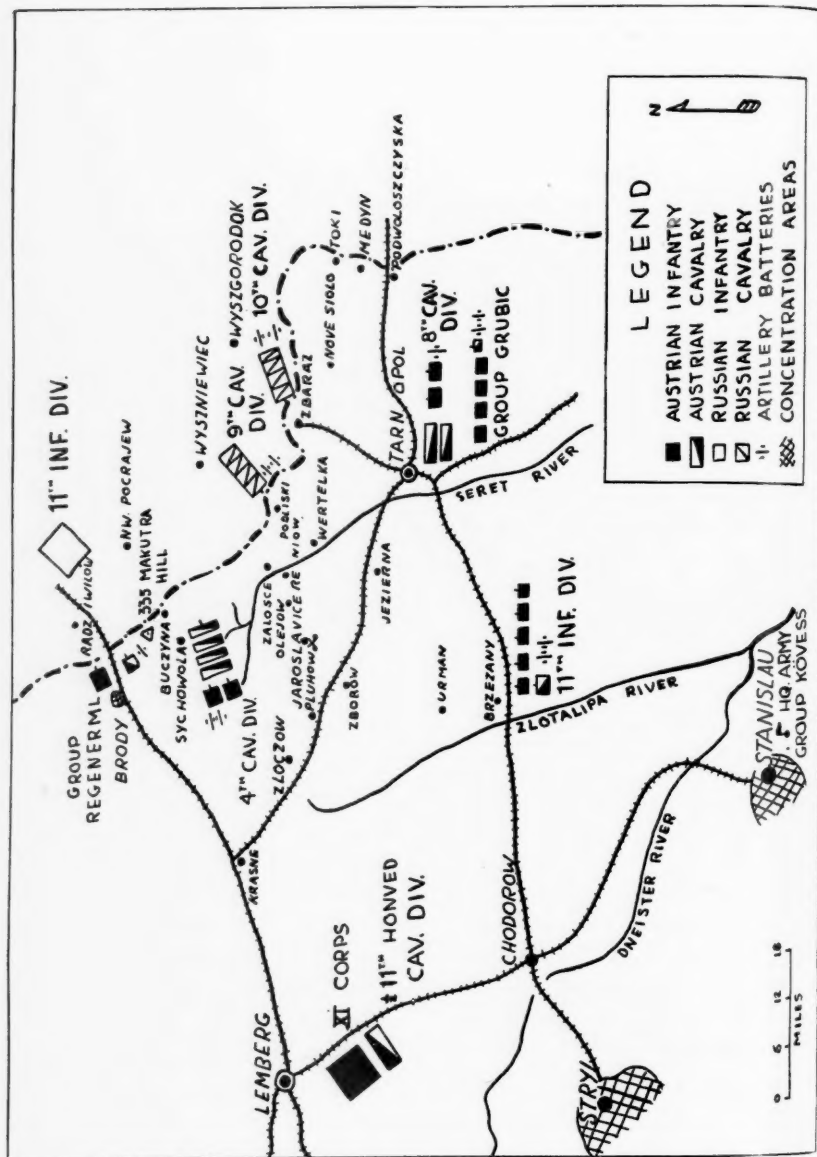
and Stanislaw, was established on the 13th of August. To it were subordinated the subsectors Dniestr, Sereth, and Lemberg. So it happened, that the 11th Infantry Division, being in subsector Lemberg, came under the command of the Army Group Kövess, while the other units standing in the same subsector, the remainder of the XI Corps and the $\frac{1}{2}$ 11th Honved Cavalry Division, were at the disposal of the Third Army. It is obvious that by such complicated circumstances the friction that inevitably arises during the concentration of modern armies consisting of millions of men, was considerably multiplied. Major Count Gudenus, at that time Chief of Staff of the 8th Cavalry Division, speaks in his memoirs of "a certain lack of clearness as to what command they belonged to and from whom they had to get orders."

We shall see the noxious consequences of this inconvenience in the events now to be related.

(For areas of Austrian and Russian concentration see Sketch No. 1; for sectors, subsectors and Austrian frontier guards see Sketch No. 2.)

The strategical reconnaissance had brought much interesting and rather important news. But neither the numerous patrols and detachments, though led smartly and resolutely, nor the great cavalry bodies penetrating far into the enemy's territory, had brought about the solution of their chief task, namely to discover the main forces of the enemy. Thus the higher commands, even the Supreme Command, were not sufficiently supplied with information about the strength and the grouping of the Russian armies. So the Supreme Command on the 23rd of August, issued an order to the Third Army directing a decisive blow against hostile forces which had passed the frontier at Brody and Tarnopol, and afterwards to bring the army into a position from which it might again take the offensive in a northerly direction. At this time, the 23rd of August, General Russki, with 220 battalions, and General Brussilow, with 160 battalions, had already invaded Galicia and had raised their arms for the hard blow against the right flank of the 280 battalions of General Brudermann (including the Army Group Kövess) that led to the battle of Lemberg.

The Russian Cavalry also seems in some way to have disappointed the expectations of their superior commands. General von Plehwe, commander of the Fifth Russian army, expresses this feeling in a rather drastic manner by saying in an order, issued to the command of the combined cavalry division in Zamosc: "I earnestly summon you to act with utmost energy and to procure more credible and



Sketch No. 3. Situation on the Morning of August 20, 1914

precise news about the enemy, of which I am entirely in want at present, owing to the inactivity of the Cavalry."*

The aerial reconnaissance was, at the beginning of the war, still in leading strings. Commanders and troops still lived in ideas born of former wars; they expected from the Cavalry exploits which were impossible under the conditions of up-to-date weapons and modern tactical camouflage. Neither the Austrian nor the Russian Cavalry had been wanting in good will and zeal to do their best. Both had attempted to procure the required news and to bring out the desired clearness. These efforts had caused a number of skirmishes between the patrols and fights between the larger reconnoitering cavalry bodies.

For the purpose of putting an end to such hostile expeditions into our areas of concentration General von Kövess issued, on the 16th of August, Operations Order No. 55, proclaiming his intention to obviate such invasions by offensive counter attacks in the future.

Already, on the 19th, the 4th Cavalry Division had been informed that the Russian 9th Cavalry Division was in cantonments in Wiszniewiec. On the 20th there arrived a dispatch from the 8th Cavalry Division (Tarnopol) from which it appeared that the division had been compelled by two Russian cavalry divisions to retreat from Zbaraz to Tarnopol, and that enemy Cavalry and Infantry had reached Zalosce. The 4th Cavalry Division had forwarded this news to the 11th Infantry Division at Brzezany (Lieutenant General Pokorny commanding) and had received an answer affirming its correctness. At 3:14 a. m. of the 20th the 4th Cavalry Division received the daily information summary from the Third Army containing the following situation: (See Sketch No. 3.)

"The Russian 11th Infantry Division is billeting in the region of Radziwilow-Dubno; 9th Cavalry Division near Podliski, 10th Cavalry Division, Wyszgorodok; strength of the squadrons about 120 riders."

This showed that on the one hand a strong force of the enemy threatened Brody from the northeast. A movement of this group had not been reported up to this time. On the other hand, strong Cavalry marching from Wiszniewiec had, with its advanced guards, already passed the frontier.

By his mission, General von Zarembo, commanding the 4th Cavalry Division, was obliged to protect our own areas of concentra-

*The fear of meeting with the disapprobation of this categorical general may have been the reason that General Wannowski, commander of the combined cavalry division, extended his raid toward Lemberg too far. He fell into an ambush near Turynka, prepared by the Austrian 2nd Cavalry Division of General von Ziegler. The Russian division was for the most part annihilated or dispersed; General Wannowski himself, being mortally wounded, died some days afterwards in Lemberg.

tion against disturbances. Therefore, he had to decide to oppose one or the other of the two enemy groups. He resolved to form a detachment under Colonel Regenerml, commander of 35th Landwehr Infantry, for the protection of the important region of Brody, and personally to attack with the main force of his troops the enemy that had invaded our territory at Zalosce. Considering the situation, this decision seems to be the right one. If the enemy continued his advance from Zalosce in a westerly direction he could possibly destroy the main railroad between Zloczow and Tarnopol or threaten the rear of the 4th Cavalry Division. The enemy group at Radziwilow had not shown any intentions to advance up to this time. General von Zarembo could take for granted that the detachment Regenerml, consisting of one battalion of the 35th Landwehr Infantry, one squadron of the 9th Dragoons and one battery of the 11th Horse Artillery Division, would be able to retard an advance of this hostile group long enough so that the main army reserve at Lemberg could send reinforcements in time. But apart from these considerations the resolution to assail the more threatening enemy was the stronger one; it corresponded better with the idea of securing our own regions of concentration. It arose, as did the above mentioned Operation Order No. 55 of the Army Group Kövess, from the conviction that an efficacious protection of our concentration areas was not to be attained by passive defense only, but by short and resolute offensive thrusts, that probably would discourage the enemy from making such invasions in the future. So the general gave the order to the division to stand ready for march at Lasowiki at 7:45 a. m. on the 20th of August.

Of course the Army Group Kövess had also received information about the enemy's reaching Zalosce. It issued on the 20th of August at 12:40 a. m. the following order to the 11th Infantry Division at Brzezany, 8th Cavalry Division at Tarnopol, and Group Major General Grubic at Tarnopol: (See Sketch No. 3.)

Operations Order No. 95.

1. Enemy Infantry and Cavalry are said to have advanced on the 19th of August* from ZALOSCE by OLEJOW and RENIOW on JEZIERNA.

2. In order to oppose this invasion according to instruction Operation Order No. 55, the 11th Infantry Division is directed forward into the region of ZBOROW.

3. The division will move, starting early in the morning on the 20th from Brzezany into the designated region. One battalion and the dispensable train will be left behind at Brzezany. The division will attack enemy forces which may try to advance against the railway line PLUHOW-JEZIERNA.

4. A similar task is allotted to the command of the Subsector Sereth (Lieutenant General von Lehmann, commanding the 8th Cavalry Division, having in the subsector his 8th Cavalry Division, two battalions 15th Infantry and the group Major General Grubic), in the region east of JEZIERNA as far as PODWOŁOSZCZYSKA.

*Which proved to be false; they probably were patrols.

5. The 11th Infantry Division and group Lehmann will act in permanent accord and will support each other. The 8th Cavalry Division is, whenever possible, to enter into the combat by resolutely pushing in the enemy's flank and rear.

6. Communication by telephone with Stanislaw No. 280 (Army Group Kövess) is to be kept as far as possible by switching on.

7. This order is issued in the same tenor to the 11th Infantry Division, 8th Cavalry Division and Group Major General Grubic.

From the memoirs of Major Count Gudenus (Chief of Staff, 8th Cavalry Division), it is to be seen that he was not very much pleased with this task. The 8th Cavalry Division had from beginning of the war tilled its field of action, the subsector Sereth, with zeal and success. It had skirmished on the Zbrucz, had discovered near Zbaraz an enemy much stronger than itself, and had stopped him. It had a sort of recovery station at Tarnopol, where men and horses could be restored after hard raids, under the cover of General Grubic's four battalions. In this region the division felt at home, there it had its proper domain, and there the commander of the division, his troops, and last but not least the Chief of Staff, Count Gudenus, expected to have the solid basis for their operations. An order obliging them to leave this place and to move toward Zalosce meant showing their backs to an enemy till now successfully kept in check; it meant abandoning their own burning house, to quench the fire in that of a neighbor. No wonder that the command did not enter wholeheartedly into this matter and that he was inclined to hear more loudly from the above quoted order the instructions of paragraph four: to cover the railway between Jezierna and Podwolszczyska, than those of paragraph five: resolute advance in flank and rear of the enemy at Zborow.

Lieutenant-General von Lehmann therefore resolved first to wait for the arrival of the 11th Infantry Division and for further clearing of the situation. He was not wrong in doing so. It was yet unknown whether the encounter would take place at Jezierna or at Zborow (first paragraph in the order). In the first case the squadrons and horse batteries would arrive in two hours, in the latter case in approximately three hours and a half, on the battlefield, provided that the 11th Infantry Division sent notice in time. Thus the 8th Cavalry Division remained in Tarnopol. Here about noon of the same day, the 20th, it received the resumé of information from the Army Group Kövess, as follows: (See Sketch No. 3.)

"1. Gendarmerie report: Strong enemy column, Infantry and Cavalry, invaded at Zalosce, advanced up to Olejow—Reniow—Wertelka; presumable aim the railway Tarnopol—Zborow.

"2. Reports by our own troops: Several squadrons Cavalry with Artillery and some Infantry are said to have invaded at Nove Siolo.

At Toki cavalry advancing on Medyn. The Army Group has the impression of the enemy's southern wing being at Gorodok."*

This news of course forced the commander of the 8th Cavalry Division to direct his attention toward the east, and it had the effect of strengthening his inner resistance against crusades in the neighboring sector while his own sector was immediately threatened.

Essentially different was the state of affairs for the 11th Infantry Division which had detached almost two-thirds of its battalions. The battalions and batteries in Brzezany had been exempted from the marches and fatigues of frontier protection. Being a sector reserve far away from the enemy it was the natural task of these fresh and spared troops to fling themselves upon the enemy with full impetuosity. Following the above mentioned disposition, the commander of the 11th Infantry Division ordered his troops to line up to start marching on the road Brzezany—Urman at 7:00 A. M. on the 20th of August.

Unfortunately General Golovine does not report in his account what occurred within the Russian lines on the 19th and the deliberations and decisions of the Russian leaders. He begins with the fact that the Cavalry of the Russian Third Army took possession of the bridges across the Seret on the 20th of August. The main columns probably arrived there in the forenoon.

Resuming the situation on the morning of the 20th of August, the following picture is given: (See sketch No. 3.)

Strong Russian forces in or near Zalosce. The bridges across the Seret in Russian hands.

At Brody, the Group Regenerml, detached from the 4th Cavalry Division, covering the area on both sides of the railway Krasne—Brody against the enemy reported as being at Radziwilow.

At Suchowola—Lasowiki, the 4th Cavalry Division, about to start for Zalosce for the purpose of forcing an encounter with the enemy, as it corresponded with the spirit of initiative of its leader.

North of Brzezany, the 11th Infantry Division ready for march to Zborow, conforming to the disposition of the Army Group Kövess.

In Tarnopol, the 8th Cavalry Division still hesitating as to how to accord the orders received with their own task and situation. Finally also in Tarnopol, the Group Grubic, which in the case of departure of the 8th Cavalry Division was concerned with the not easy task of replacing the fast moving cavalry regiments of this division by its own more weighty but less mobile infantry battalions on a frontier almost 100 kilometers in extent.

*It was actually some thirty kilometers farther toward the south.

The Army Group Kövess had resolved to oppose the enemy's invasion in an offensive way immediately, when it had got news of it. This resolution was not only in accord with the intention, expressed in the more than once quoted operation order No. 55, viz., active defence of the frontier, but also with the importance of the Seret-Graberka line as a strategical barrier before the railway Lemberg—Tarnopol. General von Kövess had absolutely resolved to drive out the troublesome adversary with his own forces only, as he could not reckon on the support of the Third Army from which he had received the following telegram at 3:00 P. M.

Operation Order No. 135. Invasion of strong enemy forces from OLEJOW by ZLOCZOW reported. Please stop an advance toward LEMBERG—ZLOCZOW by attacking rear. From LEMBERG a counteraction against this enemy at present impossible. 4th Cavalry Division stands opposite strong forces at SUCHOWOLA."

The Third Army presumed at this time that the 4th Cavalry Division was still in the region of Brody, while actually it had already set out on the march in the forenoon. An explanation of this striking misinformation of the Third Army about the doings of one of its subordinate units may be found in the complicated conditions as to organization, mentioned previously. The 4th Cavalry Division still regarded itself as belonging to the XI Corps, so it communicated with the Third Army through this corps. However, the question remains open as to what circumstances delayed the forwarding of the report concerning the departure of the 4th Cavalry Division from the XIth Corps to the Third Army.

This telegraphic call for help confirmed General von Kövess in his intention. So at 4:00 P. M. he gave a similar order to the 11th Infantry Division and 8th Cavalry Division as follows:

Strong hostile force advancing from OLEJOW to ZLOCZOW. Attack them according to yesterday's Operations Order No. 95. Third Army informed by telegram.

As it is to be seen, the Army Group Kövess had understood from the above mentioned call for support, that the enemy was already advancing from Olejow to Zloczow or from Zloczow even farther, and had in consequence of this directed his units toward the region where the enemy probably were to be found. General von Kövess's understanding of the communication did not correspond with the facts. To be sure, the text of the Third Army's dispatch, "Invasion of strong enemy from Olejow by Zloczow reported," admitted this interpretation.* We shall see later the fatal consequences of this awkward composition on the course of the action.

*The German text "Von Olejow über Zloczow Einbruch starken Feindes gemeldet" has an ambiguous sense. From it can be concluded that the enemy had *moved* from Olejow to Zloczow, or that the moving of the enemy was *reported* from Olejow by Zloczow. The latter was the actual meaning.

Before leaving Suchowola, (See sketch 4) the 4th Cavalry Division had detached two troops (quarters of a squadron) as observing posts to the Makutra Hill. Captain von Adamovich was sent forward for reconnaissance with his squadron of the First Uhlans. The First and Second Battalions of the 35th Landwehr Infantry, under command of Lieutenant Colonel Reichelt, was ordered to march by Perepelniki to Harbuzow, where presumably would be the quarters for the night. Lieutenant-Colonel Reichelt, who asked where the enemy were, was answered by the Chief of Staff, "The enemy is everywhere." This sounds very high minded; less magnanimous was the fact that from the twenty-two half-squadrons that remained to the division after deducting all detachments, not a single rider was attached to this isolated marching Infantry.

Informed by Captain von Adamovich that the enemy had taken possession of the bridges across the Seret downstream from Ratyszcze, the division marched first to Podkamien, in order to prevent an eventual enemy rush in this direction. As this did not occur, the march was continued by way of Pieniaki—Kruhow to Nuszcze. At 7:00 P. M. this place was reached. The division was billeted in Nuszcze and neighboring farms. Lieutenant-Colonel Reichelt arrived with his battalions at Harbuzow late in the evening after a thirty-two kilometer's march, and spent the night here.

Neither the division nor the group Reichelt had had any contact with the enemy during the march. On the other hand, patrols and detachments had done good work. By evening the commander of the division had received the following news:

- (a) From group Regenerml: "Radziwilow occupied by the enemy."
- (b) From Gendarmerie in Markopol and from the postmaster in Pieniaki: "Two sotnias of Cossacks are marching from Ratyszcze and Czystopadi to Hnidawa."
- (c) From Lieutenant Babecki and Second Lieutenant Preissecker, leaders of the observation parties on the Makutra Hill: "Enemy cavalry patrols and little groups of Infantry in the line Lewiatyn—Niemirowka—Boszarowka—Kazimiry."
- (d) From scouting patrol from the 9th Dragoons, under Sergeant Wanko: "In Kruhow no enemy."
- (e) From detachment Captain von Adamovich, First Uhlans, and the scouting patrols of Lieutenant Gojan, 9th Dragoons, and Count Ressguier, First Uhlans: "Since the 19th of August in Zalosse much Cavalry and Artillery and some Infantry. It is said that they will move on the 20th to Olejow. A long

transport column followed by Pieniaki." (The occupation of the Seret bridges had been reported before.)

- (f) From the militia sentry at Pieniaki: "Pieniaki free from enemy."
- (g) From scouting patrol of Lieutenant von Horodynski, First Uhlands: "Enemy column, 10 squadrons, 4 guns, and some machine guns moved on the 20th of August from Wyszniowie, passing south of Rydoml to Nw. Alexinieć. Zagorze abandoned by our gendarmerie and militia."

With this information the commander of the 4th Cavalry Division could be satisfied. The report of strong hostile forces of Cavalry marching on the one hand to Olejow, on the other hand to Alexinieć, pointed to two groups of the enemy, a new circumstance that ought not to be overlooked. In Nussche Major General von Zarembo received the following order of the XI Corps soon after midnight:

"Strong enemy detachment, composed of much Cavalry and guns, is advancing by way of Olejow to Zborow. Patrols of this detachment were only two kilometers distance from Zborow in the evening. From Brzezany 5 battalions of the 11th Infantry Division moving to Zborow, will probably arrive there this evening. From Tarnopol one division of Cavalry will start in the direction of Zborow. The 4th Cavalry Division will start tomorrow, early in the morning, and will try to operate in the enemy's rear. Communication with Tarnopol, Zborow and Pluhow (reporting center of the Sector Lemberg) desirable."

Thus the divisional commander received in good time the important news that he would not stand alone in the impending combat. This circumstance made it necessary to arrange his own actions in accordance with both the other groups. Major General von Zarembo had not counted on such co-operation when he left Suchowola on the morning of the 20th. He had set out from his cantonments, obeying only the strong impulse of his valiant mind, that yearned to meet the foe; he had supposed that the 20th would already bring the desired encounter somewhere in the neighborhood of Zalosce. After his arrival in Nussche he still gravitated toward this place, or it may be said, approximately toward the east. So he had intended to place the two battalions of the 35th Landwehr Infantry on the morning of the 21st, as a sort of folding screen from behind which it would be possible for him to throw his mounted regiments wherever the enemy should appear. In consequence of this plan Lieutenant-Colonel Reichelt was ordered to seize the hills on both sides of the inn Obydra on the 21st at 5 A. M.

The above telegram of the XI Corps made the whole situation appear in another light.

If the enemy was already marching from Olejow toward Zborow, an advance to Zalosce meant a thrust in the empty air. Not at Zalosce but at Zborow, perhaps even between Zborow and Pluhow, the fight

between our own 11th Infantry Division and the hostile forces was to be expected. The commander had to direct his attention, not toward the east, but toward the south. There, on the fields near Zborow,—well known to the 13th Uhlans of his division from their rather unpleasant garrison in peace time—he hoped to lead into combat his regiments, whose high standard of horsemanship and daring spirit seemed to warrant certain victory.

According to General von Kövess's project, the 11th Infantry Division had to seize the enemy in the front line, while the 8th Cavalry Division was directed toward his flank and rear. By the co-operation of the 4th Cavalry Division this plan was enlarged to a complete surrounding maneuver which should have its zenith in the crushing of the enemy between the two arms of the tongs formed by both cavalry divisions. Altogether it was not a simple affair. On the morning of the 20th of August, the 4th Cavalry Division was placed at a distance of seventy kilometers, airline, from the 11th Infantry Division; the latter was fifty kilometers from the group Lehmann; between this group and the 4th Cavalry Division there was a distance of sixty kilometers. A precise co-operation of units so remote from each other, for a joint action, is always a rather difficult undertaking, especially if the enemy consists of easily movable Cavalry. In this case fortune had presented a finger to the Austrian divisions. None of them had been influenced by disturbing accidents. So the distances, above referred to, were, on the evening of the same day, only 30, 35 and 40 kilometers.* And what is more, from General Golovine's memoirs, it is evident that the Russians had no knowledge of the three approaching groups. Now the point in question was resolutely to seize the offered finger of fortune in order to gain her whole hand and thus to hold fast the favor of the capricious goddess. It was possible that this surrounding maneuver, so greatly planned, could succeed. Indeed it was sure to succeed—in the supposition that the enemy advanced in the above mentioned region,—if initiative of the leaders, ability of their staffs, and fitness of their troops, corresponded to the standard of the task.

Surveying the situation on the evening of the 20th of August, we see the commander of the 4th Cavalry Division had resolved to meet with the enemy in any event. In the morning, not waiting for orders, but acting on his own initiative, he had directed his regiments where he hoped to find the enemy. So he ordered the division to stand ready to march at 4:00 A. M. the 21st of August, on the southeastern egress of Nuszcze.

*Situation on the evening of the 21st of August: (See Sketch No. 4.)

The 11th Infantry Division had not reached the prescribed destination of march, but had quartered five kilometers south of it in the villages Chorobow—Choroscie—Jozefowka. This delay is said to have been caused by heavy intermittent showers of rain, that drenched the roads and thus retarded the march. The start on the 21st was ordered at 10:45 A. M., and weariness of the troops was assigned as a reason for this late hour. I cannot remember that the 20th of August was a rainy day or that the roads on our line from Suchowola by Podkamien to Nuszcze were drenched. It may be that a local thunderstorm had occurred in this region which the 11th Infantry Division passed through. However, attention must be called to the circumstance that the First and Second Battalions of the 35th Landwehr Infantry under command of Lieutenant-Colonel Reichelt, walked thirty-two kilometers on the same day, a little farther than the 11th Infantry Division; that these battalions, attached to the 4th Cavalry Division were in the frontier guard service from the beginning of the war, being therefore somewhat exhausted; and finally, that they were ordered to stand to on the 21st at 5:00 A. M. near the inn Obydra, which involved breaking camp at 3:00 A. M. The 11th Infantry Division apparently did not burn with impatience to cope with the enemy, much in contrast to the impetuous eagerness to fight of the 4th Cavalry Division.

The 8th Cavalry Division remained for the night in Tarnopol. Its commander obeyed the order of his superior command, not with enthusiasm, but in soldierlike subordination to his duty. All dispositions were given to perform the undersired order as well as possible, though perhaps not with such buoyancy as personal initiative grants to military actions.

So we see keen eagerness to fight at the left, hesitating clumsiness in the center, and temperate but passive conscientiousness at the right of the three groups, which had to pursue a common aim of combat on the 21st. In whatever way the goal was to be reached, *one* will had to rule over all of them, *one* will had to regulate the pace and the co-operation in the action.

It is one of the tactical principles that forces not organically united, bound for common task of combat, should be subordinated under one command. In the case in question there were different possibilities to meet this exigency. Either both commands of the armies (Third Army and Army Group Kövess) could nominate a higher general as the supreme leader of the action, or they could charge the highest in rank of the three divisional commanders with this task. In want of such disposal the latter,—in this case Field Marshal von Lehmann,—had to seize the generalship of his own accord, in con-

formity with the service regulations of the Austrian army. The omission of this arrangement was a fault that cannot be explained even by want of experience in warfare. During the night Major Count Gudenus had called by telephone the Chief of Staff of the 11th Infantry Division, Major Baron Grancy, in order to talk over some details for the common advance on the following day. The latter had answered that the division was very much exhausted and therefore it could scarcely start before noon. Count Gudenus remarks this fact in his memoirs, and adds that under such circumstances he had no great hope for the success of the action. The events of the 21st have proved him to be correct.

The Russian 9th Cavalry Division passed the night in Zalosce, the 10th in the region of Reniow.

(To be concluded in the October issue)



Armored Cars in the Cavalry Maneuvers

By MAJOR E. C. MCGUIRE, *Cavalry, Instructor Cavalry School*

TROOP A, 1ST ARMORED CAR SQUADRON under command of Captain H. G. Holt, Cavalry, is the first armored car unit to be organized in the United States Army. This unit was organized at Fort George G. Meade early in 1928 and joined the 1st Cavalry Division, as a divisional unit, in November of that year.

The Cavalry division maneuvers which began October 7, 1929, over the terrain in and about Fort Bliss, Texas, came after this pioneer armored car unit had performed about a year's duty with the division. During this year of service many small exercises were held to test the employment of the armored car unit with cavalry commands up to and including the reinforced brigade, and many experiments, involving necessary changes in organization and equipment, were conducted, so that by the time the maneuvers began the armored cars were ready to show the service they could render their division in operations in the field.

It must be remembered that up to the present time our Cavalry has adopted in principle the light and medium armored car for use with Cavalry units, and considers the primary mission of these cars one of reconnaissance. The combat value of these cars is considered very great under certain circumstances and conditions, but their employment as combat vehicles must always be subordinated to their use for reconnaissance.

During the maneuvers numerous discussions arose involving the elimination of the medium armored car, and having only the light car for reconnaissance. The problem seemed to resolve itself into a question of whether the light car could stand the hard usage to which reconnaissance vehicles are subjected and the possibility of mounting a suitable anti-armored car weapon in the light car. To the unbiased mind only actual test can answer these questions and if this test shows that they can be answered in the affirmative, the small weight of the light car, its small initial cost, and its ease of maintenance, would seem to make it ideal for reconnaissance purposes. On the other hand, if a stronger car is necessary to do the work and carry the essential anti-armored car weapons, then the medium car will be necessary and in all probability the latest types of light truck

chassis will be the frame work upon which will be built the most suitable type of armored car body.

The need for a heavy armored car for work with the Cavalry has been recognized for some time and numerous opportunities arose during the maneuvers where fast cars of such a type would have been invaluable for combat purposes. One has only to visualize cars of this type, equipped with smoke canisters, preceding a mounted attack at twenty or thirty miles an hour to see how the terrifying effect of a Cavalry shock action can be brought to bear with the help of these modern auxiliaries. Certainly wire and automatic weapons would lose much of their effectiveness and the only sure defense would be that of securing terrain inaccessible to mechanical vehicles, but terrain of this nature is often a boomerang to a defender.

Organization and Equipment

For purposes of the maneuvers, due to the equipment and personnel available, Troop A, 1st Armored Car Squadron was organized into two platoons. These platoons had the following cars:

1st Platoon

- 1 Pontiac (Light) (Radio).
- 2 La Salle (Medium).
- 1 Acme (Medium).

2d Platoon

- 1 Pontiac (Light).
- 2 La Salle (Medium).
- 1 Dodge (Medium).

Troop Headquarters

- 1 Scout Car (similar to Pontiac).
- 1 Truck, 5 Ton (Auto Car).
- 1 Truck, 1½ Ton.

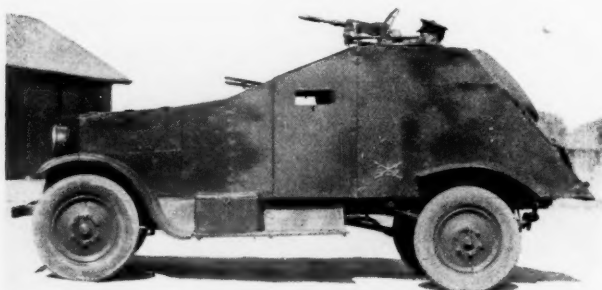
The bodies of the Pontiac (Light) cars were constructed by the Ordnance Department. They mount two .30 caliber machine guns and the car assigned the 1st Platoon was equipped with an SCR-127 radio set operating on batteries and a motor generator.

The bodies of the La Salle (Medium) cars were constructed by the Ordnance Department. They carried different armament. Of the two with the 2d Platoon, one carried a .30-caliber machine gun and the other a .50-caliber machine gun. Of the two with the 1st Platoon one carried a .30-caliber machine gun and the other a combination 37 mm. gun and .30-caliber machine gun. In these cars all guns were mounted on pedestal mounts and all carried an extra .30-caliber machine gun equipped with the portable tank tripod. In addition these cars were equipped with smoke canisters, mounted in rear, which could emit a heavy smoke cloud for several minutes.

The body of the Acme car with the 1st Platoon was constructed by the personnel of the armored car troop. The body was designed

in accordance with their own ideas and the .30-caliber machine gun was mounted on a 32-inch aviation ring mount. The Acme chassis was originally designed for a light truck.

The body of the Dodge car with the 2d Platoon was also constructed by the personnel of the armored car troop on a Dodge light truck chassis along similar lines as the Acme and mounted a .30-caliber machine gun on an aviation ring mount.



Experimental Dodge Armored Car

The scout car assigned troop headquarters was very similar to the Pontiac light car and like that car it mounted a .30-caliber machine gun on a pedestal mount similar to the rear gun on the Pontiac car.

The five-ton Auto Car truck carried much of the supplies and maintenance equipment for the troop. It was pneumatic tired, could make forty-five miles an hour on good roads and easily kept up with its unit. This was an experimental vehicle loaned by the Motor Transport Corps.

The one-and-a-half-ton truck was the ordinary solid-tired truck furnished throughout the service. It performed satisfactorily throughout the maneuvers.

The crews assigned varied with the type of car. The Pontiac had one non-commissioned officer as car commander, a driver and gunner. The La Salle had a non-commissioned officer as car commander, a driver, a gunner and assistant gunner. Ordinarily, the platoon commander rode in one of the La Salles at the head of his platoon, in which case the assistant gunner was assigned to another car. The Acme and Dodge cars ordinarily had only a non-commissioned officer as car commander and gunner, and a driver, but these cars could

carry three men and at times an assistant gunner rode beside the driver.

Each driver was armed with the rifle. Thompson sub-machine guns were available for each La Salle car but these were not carried due to the fact that there was no means of firing blank ammunition from the guns. It was planned to carry 3,500 rounds of .30-caliber ammunition in belts in each car armed with the .30-caliber machine gun, 1,000 rounds for the .50-caliber machine gun and 200 rounds for the 37 mm. gun, but a much smaller amount of blank ammunition was carried for maneuver purposes.

Terrain

The terrain over which the maneuvers were held was that which could be included within a radius of sixty miles of Fort Bliss, Texas. Much of this terrain is sandy loam desert land, more or less flat, with small sand mounds dotting its surface. What vegetation there is consists of mesquite, cactus, and other desert growths which are seldom over waist high. Near the Rio Grande River the usual rim rock formation is encountered and in the Franklin and Organ Mountains, soil and rocks of volcanic origin are found, together with the typical desert vegetation.

Wire fences were numerous near towns, but were encountered very infrequently outside of these inhabited areas.

The weather for the early part of the maneuvers was clear, but rains of cloud-burst intensity were encountered during the later phases.

During the dry weather it was found that the armored cars could move at will across country but at a greatly reduced speed of about ten or twelve miles per hour. During wet weather the cars could still move across country provided they followed the contour of the high ground. Any attempt to cross low ground during the wet weather meant that the cars were bogged down, and could only be moved with the assistance of their crews digging out in front of the rear wheels and the laying out of artificial traction. Several instances of work of this kind by the armored car crews were observed and demonstrated the principle that the ability of armored cars to get through depends largely on the energy and resourcefulness of the crews.

During the maneuvers only one puncture was known to have occurred. This was undoubtedly due to the fact that the cars were equipped with puncture-proof inner tubes, which would allow pieces of wood or even headless nails to pass through to the interior of the tube, without deflating the tire.

General Plan of Maneuvers

In general the maneuvers consisted of a regimental phase, a brigade phase and a division phase.

During the regimental phase there were four exercises in which regiment operated against regiment, and two marches involving the move of dismounted regiments by motor transport to locations from which two of the regimental exercises could begin. Armored cars were involved in the two marches mentioned and the two exercises following these moves. In the other two exercises the armored cars did not take part.

During the brigade phase there were three exercises in which brigade operated against brigade and three marches for the purpose of moving the troops into position for the exercises.

In the division phase there was only one exercise and the armored car troop functioned as a unit in this.

Regimental Phase

During this phase the 1st Platoon, Troop A, 1st Armored Car Squadron, was the only armored car unit employed.

This platoon was attached successively to the regiments moved by motor transport and was assigned reconnaissance, delaying and security missions.

During the first march the platoon was ordered to precede the column by ten miles and reconnoiter five miles to either side of the axis of advance. Reports by radio were required every two hours and a line was designated, about a mile beyond the march objective of the column, which the armored cars were not to pass.

The holding of the cars at a specified distance ahead of the column was not thought wise. At this distance they were useless for local security and their ability to go on to their objective, while still performing the lateral reconnaissance should not have been restricted. Control could have been maintained by requiring radio reports on passing definite points or lines.

If sufficient cars had been available some should have been held with the column for local security while the others were sent on the long-distance reconnaissance mission. In this situation sufficient cars were not present and the long-distance mission which involved a move of some sixty miles was the more important.

In the second march the above errors were corrected and the armored car platoon functioned smoothly and efficiently covering the entire front of advance.

The radio set of the platoon proved most valuable and allowed

messages to be sent quickly without the necessity of sending messengers long distances. A radio set should be in every armored car platoon.

In the delaying action which followed the first march the platoon proved of great value and well suited to this action against troops moving on or confined to roads.

Contact was gained with a mounted regiment about six miles in front of the first delaying position of the motorized column.

The tactics of the armored cars varied between ambushing and scattering the leading elements of the advancing column, and long range machine gun fire accompanied by retirements by echelonment of sections.

The advancing regiment soon discovered that by leaving the road and moving against the flanks of the positions assumed by the armored cars, while supported by the fire of their 37 mm. guns, fair progress could be made, but their rate of advance for the six miles hardly exceeded three miles per hour.

This action showed clearly the value of armored cars for reconnaissance, maintaining contact, and delay. The necessity for Cavalry opposed by armored cars to operate and move off the roads, and for having 37 mm. or other suitable anti-armored car weapons well forward with leading elements to form a pivot around which flanking action could be instituted, was clearly shown.

The use of smoke by the armored cars to cover their withdrawal, or that of other troops, was observed during this action. The smoke cloud seemed thin and although it might have been most effective in an emergency, too much of this would lead to an early discovery of the cars.

During the action which followed the second march, the armored car platoon was again given a mission requiring the gaining of contact with a mounted regiment and delaying its advance. In this case the mounted regiment on leaving its bivouac made a wide detour around the left flank of the motorized column. The armored car platoon made a rapid reconnaissance on about a mile front towards the bivouac of the mounted regiment, but upon arrival found their quarry flown and were content with capturing the trains of the regiment which were moving out on a different route.

The performance of this mission by the armored cars seemed faulty in that they should have used their speed to move by bounds and at each bound reconnoitered well to the flanks. If this had been done the detour of the mounted regiment might have been discovered.

Again upon arrival at the former bivouac of the mounted regi-

ment, the armored cars should have made every effort to determine the direction the combat elements had taken by observing tracks, and questioning prisoners. This information would have been most valuable to the motorized column and the armored cars might have had the opportunity of following the tracks of the mounted regiment and gaining their rear, where considerable harassing action could have been accomplished.

On the other hand, it seemed apparent that to depend on armored cars alone for reconnaissance is an error. Their work is most efficient in moving long distances and locating the dispositions of large hostile bodies. Being confined to roads, their work should always be amplified by patrols, especially for close reconnaissance.

After completion of the detour by the mounted regiment in this problem, an attack was organized against the troops composing the motorized column. The armored car platoon, after disposal of their captured trains, arrived on the scene just as this attack was about to be launched and were assigned a mission to cover the right flank of a dismounted line. This involved action entirely off roads and across country where the speed of the cars would hardly exceed ten to twelve miles an hour. Moving out on the flank, the armored car platoon soon sighted the reserve of the mounted regiment and moved to the attack. This brought about a meeting between the armored cars and the maneuvering force of the mounted regiment launched against the right of the dismounted line.

The mounted troops in this attack were aggressive, and many seemed to have been told that their pistols would be ineffective against the armored cars, so that they moved at full speed with their rifles held above their heads much in the manner of *spahis*. Needless to say, the armored cars were quickly surrounded and put out of action. One of the crews was saved from sudden death by saber thrusts only by the opportune arrival of an umpire.

This action showed quite clearly that the armored car of the type employed in the maneuvers is primarily a reconnaissance vehicle. Their combat value is considerable only when the action is characterized by a sudden appearance, followed by the immediate development of their full fire power, and the maximum use of their mobility. In this case their mobility was so restricted that their combat value was small, but if they had been kept in motion on the outer flank of the dismounted line the maneuvering force could have been attacked in flank or the cars might have caused a wider envelopment which would have assisted the dismounted force to meet the attack.

As it was, the losses on the cavalry side would have been heavy

and a considerable portion of the maneuvering force was diverted to put out of action the armored cars.

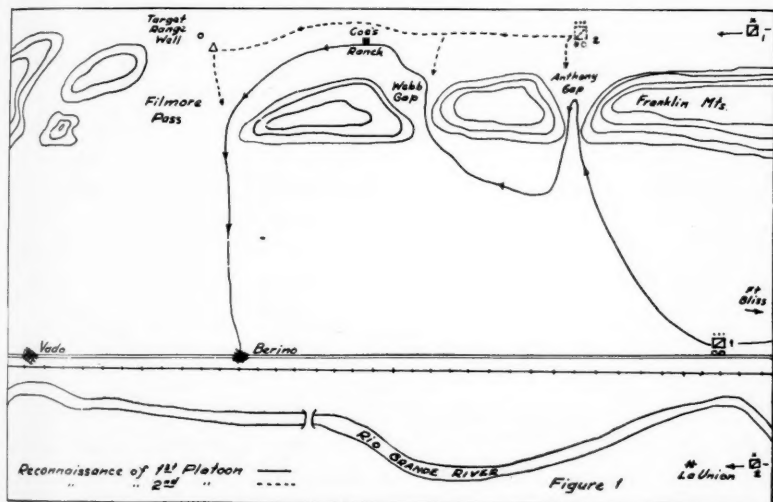
It was noted in this action that all cars did not conform strictly to the movements of the leader's car. This led to considerable dispersion of the cars.

Brigade Phase

During this phase the 1st Platoon, Troop A, 1st Armored Car Squadron was attached to the 2d Cavalry Brigade and the 2d Platoon to the 1st Cavalry Brigade.

The armored car units were naturally employed on reconnaissance missions during the moves of the two brigades to their maneuver areas. The direction of march of each brigade together with the reconnaissance performed by each armored car platoon are shown in Figure 1.

The reconnaissance of the 2d Platoon, Troop A, 1st Armored Car Squadron into Anthony and Webb gaps was made after the passage of the 1st Platoon. The 2d Platoon then continued on to the Target



Range Well and, operating from that point, sent patrols to keep the passes under observation.

The reconnaissance of the 1st Platoon was made with the platoon assembled. No contact was obtained with the 2d Platoon except that while returning through Filmore Pass a single car of the 2d Platoon was observed approaching from the direction of Coe's Ranch at considerable speed. This car, on account of its dust, was observed at

least a mile away. It was cleverly ambushed and put out of action.

This latter incident showed the danger of employing a single car on a mission, for on being fired upon, the car lacked all fire support during the turn around and retirement. Of course, the possibility of a break down hardly needs comment.

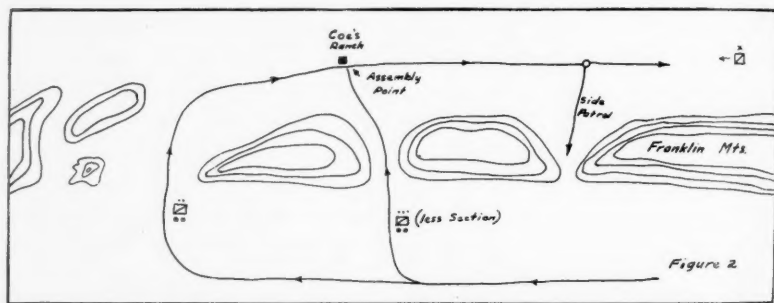
Again it seemed obvious that armored cars on reconnaissance must move by bounds and reconnoiter the terrain through which they are passing. They must always remember the dust they are throwing up when considering concealment.

In performing a reconnaissance such as called for in this problem, armored cars should cover a wide front and cover as many points as possible simultaneously.

A possible solution for the reconnaissance of the 1st Platoon is shown in Figure 2. In this problem this solution could not be carried through to the gaining of contact with the enemy main forces on account of restrictions, but it will serve to illustrate the point.

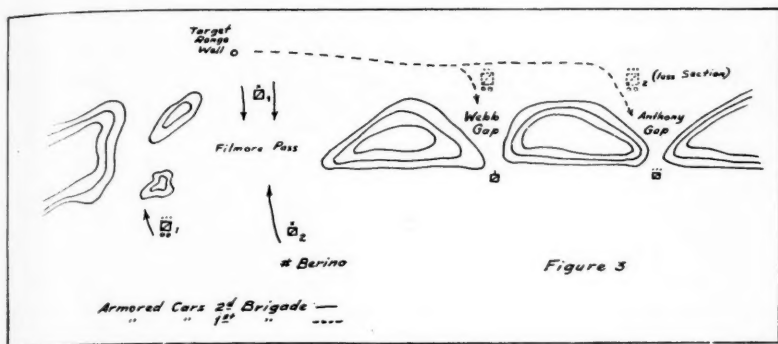
After the arrival of the brigades in their proper maneuver areas, three problems were held in which brigade operated against brigade.

In the first two problems the 2d Cavalry Brigade had an aggressive mission while the 1st Cavalry Brigade had a defensive one.



There is shown in Figure 3 the use made of the armored cars on both sides during the first problem and, as the second problem was almost identical, will cover pretty generally both of these exercises.

The armored cars of the 1st Brigade with a motorized radio set attached were given the mission of holding Webb and Anthony gaps and reporting the advance of any enemy attempting to pass these points. To accomplish this mission the 2d Platoon, less one section and with a motorized radio set attached, proceeded to Anthony Gap, and one section was sent to Webb Gap. A set of pyrotechnic signals was provided for use of the section sent to Webb Gap in communicating with the platoon headquarters. The platoon headquarters was



in constant communication with the brigade by radio. One of the cars of the section assigned to Webb Gap went out of commission before starting but the single car remaining was sent to Webb Gap. Due to heavy rain this single car was mired. Two of the crew dismounted the machine gun from the car and advanced on foot into Webb Gap where they ambushed a platoon of Cavalry and put it out of action although they themselves were soon captured by the remainder of a group of Cavalry coming through.

The armored cars with the 2d Brigade were given the mission of reconnoitering the north side of Filmore Pass and covering the left flank of the brigade. This platoon found little to do until an attack was launched by the second Cavalry Brigade against the right flank of the 1st Cavalry Brigade, when the lieutenant commanding the armored car platoon engaged his command on the outer flank of the maneuvering force and assisted in the attack.

During this problem and the one which followed, it seemed that it would have been better had the armored car units with each brigade been used to reconnoiter the front of advance of their main bodies, and small detachments of Cavalry used for the flank missions. This would have given early information of dispositions of each side in the advance, and should have furnished information of great value to the commanders of each side in the meeting engagement that followed. After contact had been gained the cars could have easily been withdrawn to the flanks.

Under ordinary circumstances armored cars are not suited to holding passes or other localities, especially where their mobility is adversely affected by weather and terrain. The danger of using a single car on a mission was again illustrated. The removal of machine guns from a car should be done only in emergencies and then only for short distances from the car.

The necessity for radio equipment in each armored car platoon was again demonstrated in these problems, and the value of visual signals within the platoon was emphasized. In this connection the need of some means of communicating with aviation was indicated in each armored car platoon.

During the problems it was noted that each armored car platoon commander was carrying complete copies of the brigade field order. It is believed that this is a mistake on account of the danger of capture, and that instructions for armored cars should be given in letter form similar to those given a reconnaissance troop, with all information of the enemy and our own troops omitted and given verbally to each commander.

The fact that armored car commanders will frequently have to act on their own initiative and in conformity to the general plan was clearly demonstrated by the armored car platoon with the 2d Cavalry Brigade.

During the last problem of the brigade phase the 1st Cavalry Brigade was given an offensive mission, while the 2d Cavalry Brigade took over the defensive one.

In this problem both brigades employed all or part of their armored cars for reconnaissance on their front of advance.

The rain which fell before and during this problem defies description, and the condition of the ground was far from favorable for armored car work.

The armored cars with the 1st Cavalry Brigade had only three cars in commission and in moving out on their mission of reconnaissance made a poor choice of routes, and immediately mired two of the remaining three cars. The platoon commander then dismounted all .30 caliber machine guns from the mired cars, placed them in the remaining car, and pushed on to a point of observation on his objective. Here the machine guns were taken from the car and emplaced on the ground to cover a ravine which led up to the point of observation and threatened the left of the 1st Cavalry Brigade.

The removal of the machine guns from the mired cars and pushing on to the objective appeared to be a good idea initially. However, the emplacing of the guns on the ground made the remaining car nothing but a machine-gun carrier, and resulted in making the other two cars useless upon their release from the mud, which occurred within twenty minutes to one-half hour.

The armored cars with the 2d Cavalry Brigade were employed so that one section reconnoitered the front of advance of the brigade

while the platoon less a section with two experimental anti-aircraft cars were employed to cover the right flank.

These armored cars performed their missions well, selected good routes and at no time were mired down. It is believed that the entire platoon might have been better employed for reconnaissance on the front of advance but this has been already stressed.

Division Phase

During this phase there was but one problem. This involved the entire cavalry division in a delaying action against an assumed infantry division.

Troop A, 1st Armored Car Squadron was employed so that the troop, less one platoon, reconnoitered the right flank of the division advance and one platoon reconnoitered the left flank. Both armored car units were given definite localities, opposite the flanks of the first delaying position, from which these flanks were to be covered.

The troop less one platoon from its position far out on the right flank reported by radio what would be seen of the advance of the infantry division which was represented by flags.

The platoon covering the left flank reported on the progress of the attack of the infantry division, which took the form of an envelopment of the left flank of the first delaying position. This position also assisted in delaying action on the left, and covered that flank.

In this problem it is believed the division should have employed the armored car troop to reconnoiter the entire front of its advance, and to delay the advance of the infantry division. This assignment would not have precluded the use of a cavalry reconnaissance troop as was done in this problem, but the cars would have operated far in advance of this reconnaissance troop and would have assisted it greatly in its detailed reconnaissance. Upon being driven in on the first delaying position the cars could have been withdrawn to the flanks and performed the missions that were assigned them.

General Comment

We are living in a machine age and to be modern, Cavalry must take every advantage of the machines this age places at its disposal. This the Cavalry has done, and will do, more and more as these mechanical auxiliaries are developed and proved of value.

The need for Cavalry to perform missions requiring a measure of dispersion, and timely offensive or defensive action at critical points of the field of battle, is as real today as it ever was, for the simple reason that there is no machine or group of machines that can perform the missions that Cavalry can perform.

In performing these missions, however, modern Cavalry to employ its mobility with the least waste of effort, and to intervene at the psychological moment with its fullest combat strength, must have every modern facility for reconnaissance.

The machine age has so far furnished aviation and armored cars to fill this need, and these auxiliaries should be thought of in this sense.

It is not much of an effort to imagine large cavalry units of the future preceded by aviation on long-distance reconnaissance, with light or medium armored cars amplifying the work of the aviation, and with mounted patrols amplifying the work of the light or medium armored cars. Certainly the engagement of the main columns of the cavalry command, based on the information gained by their reconnaissance agencies, should be much simplified, especially if these main columns are equipped with heavy armored cars to overrun light resistance encountered and assist in their engagement. However, in considering these machine auxiliaries, it must never be forgotten that they have definite limitations, based upon weather, terrain, mechanical difficulties, and supply. The cavalry troops themselves are alone able to function twenty-four hours a day, 365 days in the year.

The work of the armored cars in the maneuvers was excellent and certainly tended to prove the truth of the statements made above. The *esprit* of the personnel was high, they showed the qualities of boldness, initiative, and resourcefulness, and every mission assigned was carried out with an earnestness that was edifying to observe.

Much must be done in the development of the cars themselves by the technicians concerned in this work. The question of whether the light or medium car should be adopted for reconnaissance was far from decided during the maneuvers, due to defects encountered in both types of car present, but experiments should continue in this line.

It does seem, however, unnecessary to have both the light and medium car included in the platoon organization, and eventually either one type or the other should be adopted.

The bodies on the cars varied in design, but all were open at the top giving an unobstructed vision, and field of fire. The idea seemed to be sound. The pyramidal shaped body seemed superior to the others in the work observed.

The ring type of gun mount seemed far superior to the pedestal mount, both as to weight and ease of handling the gun. It is believed the ring or revolving open turret mount will be found most satisfactory.

The need of a heavy armored car for combat purposes was

apparent. The function of the light or medium cars should be primarily reconnaissance.

In the matter of communication, the inclusion of radio equipment in the platoon, troop, and squadron, seems essential. If possible these radio sets should be able to communicate with aircraft, but at any rate, suitable means of communication in this regard should be furnished.

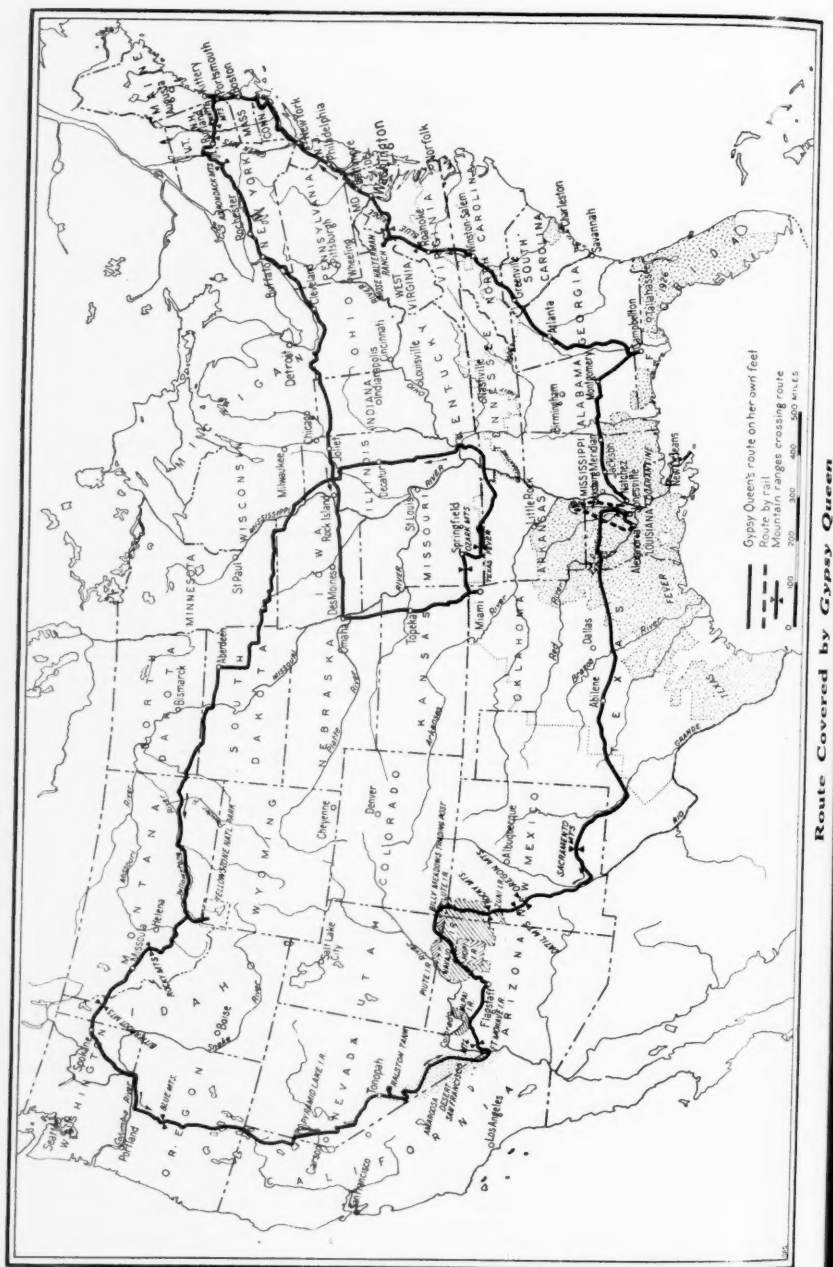
A cross-country car or other liaison car should be in each platoon for message work. The possibility of using motorcycles in this work should be considered, but the armored car personnel that were interviewed seemed against this, due to the difficulty of keeping these vehicles in running order, and the increased number of spare parts needed.

Suitable pyrotechnic signals should be developed for use with armored cars. Lamps also might be used in prearranged code work.

In the employment of the light and medium armored cars, it should be remembered that these are primarily reconnaissance vehicles. When employed in combat their action should be characterized by a sudden appearance, the immediate development of their maximum rate of fire accompanied by constant changes of position. The missions of harassing or delaying action are therefore ideal for these cars.

Armored cars should never be used in an attempt to hold a locality but should be used far in advance of troops to gain contact, reconnoiter, and delay, eventually withdrawing to the flanks on a covering mission.

Armored car officers should be so trained that they can advise superior commanders as to the proper employment of their units.



What One Horse Did

By FRANK M. HEATH

ONE of the avowed reasons for my undertaking a trip through every State of the Union was to prove by actual test the capabilities of a good horse. And I placed the time—barring major accidents—for the completion of our trip within a limit that I believed would bring out new actual proven facts that would mean an addition to the science (or records) of horse husbandry.

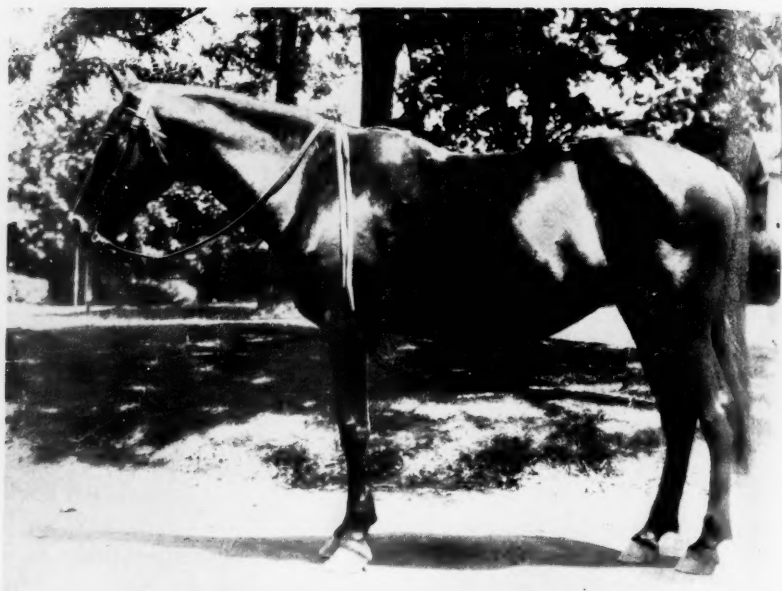
The proposed undertaking as announced on departing from the Mile Stone in Washington, D. C., on April 1, 1925, was "to hit some part of every State in the Union and return to Washington on or before July 1, 1927, riding one horse."

I tried to make it plain that by "riding" I did not mean that I must stick in the saddle all the time, especially as I anticipated packing my one horse more or less. It turned out that I did pack her to more than one hundred pounds dead weight for many hundreds of miles at a stretch and probably averaged seventy pounds all the way. I had no other animal with me at any time except for 350 miles—Miles City, Montana, to Mammoth, Wyoming and that horse I did not ride. She carried camp equipment, feed and my rations. My only objects were to recuperate my health, to win for a good horse a place in Heaven—Horse Heaven—and to add a little to that education acquired in the school of hard knocks. By "a good horse" I let it be understood that I meant a representative good horse, of the saddle-road type.

Fortunately I had not far to go from Washington, D. C. to find what I termed "a good horse." I obtained *Gypsy Queen*, a solid dark bay, south of Warrenton, Virginia. She was foaled and reared near Sperryville in the Virginia foot-hills with their limestone, blue grass and moderately rugged winters.

She came from the progeny of some of those good old Southern horses of the saddle-road type. She cost me \$110.00. She was ten years old, stood fifteen hands and weighed about 950 pounds. She is fairly up on legs, has a short back and a good middle. Her best gait on our trip was just a good walk. She has three distinct trots, including a "fox trot" besides what I term a "jog" or long, easy swinging trot. The latter is her best gait other than the walk. She is not good at a canter, which I did not consider a great disadvantage. I would seldom canter a horse on such a trip. She can run a fair clip in a pinch. She has two walks, a quick snappy one which she assumes "in

Mountain ranges crossing route
0 100 200 300 400 500 miles
Route Covered by *Gypsy Queen*



Gypsy Queen After Completing the 11,356 Mile Trip

society," being very proud, and a long, strong stride she takes automatically on the road. She has black markings, including a black stripe down her back and good hoofs. She has hazel eyes, a slightly Roman nose, indicating grit, a strong jaw and wonderful teeth.

When I got *Queen*, she had her tongue cut about one-third off by some kind of a bit. Her mouth was split fully one-half inch beyond its natural size. She was "trading stock." She evidently would resent cruel treatment which made me like her the more. I believed she would respond to kindness and firmness. She did.

I had a lot to do before starting. Laying out my route roughly, was no small job. I planned to hit as nearly as possible the hot places in cold seasons and vice versa. I knew I could not hit all the Northeastern States and cross the Rockies before the northern winter set in, and have my horse fit to go on. That is why I planned "the loop" the first season (see map). Then came estimates of the time it should take us to make each leg, at a rate I believed a "good horse" could stand and keep going. This was by no means a matter of how far a horse can travel in one day, a week or a month. One can draw on a horse's stamina for that. It was a case of replacement under untold handicaps. For many years I have had no patience with the general belief that a horse has no resistance against such changes as our

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undertaking, living off the country as I proposed to do, required.

The choosing of equipment caused me some study. I knew that every pound of dead weight meant a reduction of miles in a given time, but I yet had to learn to what a vast extent this applied on a sustained trip. I chose a McClellan army saddle as the best I knew, or yet know of, for the purpose. We started out with saddle bags containing very light grooming kit, one front, one hind shoe, nails (took a chance on borrowing tools), some credentials and cards and schedules and shaving kit. I had two army rain coats. The reason for this was to use the extra when very cold, at the same time it would serve as bedding. Later I often found this second rain coat came in handy in protecting *Queen's* loins from a cold rain. I fastened it to the back of the saddle by means of a long string passed through both sleeves and with a kind of crupper to go under her tail. Of course, we could not both use the extra coat at the same time but sometimes I thought *Queen* had it coming to her. We started with two army blankets. One of these was used under the saddle in the army way. (In addition to this I had fastened securely under the saddle one-half of a common collar sweat pad on each side, taking care not to crowd the backbone.) The other blanket, together with a lined duck horse blanket, a shelter half, an extra shirt, an extra pair khaki breeches and blouse, a change of underclothing, socks and a towel, were rolled in a poncho and fastened to the cantle of the saddle. Here I departed from the army regulation, by using long whang leather strings. In tying the roll I use a single bow knot. Then I throw a half hitch over the loop and tie on a rain coat; another half hitch and another rain coat. Thus I can remove one without loosening the whole.

On the pommel of the saddle I arranged a kind of hook on either side by means of a heavy wire. Suspended from these were a nose bag on the right in which I sometimes carried an emergency feed and on the left an old-fashioned army haversack containing a mess kit and miscellaneous articles which I divided at times into the nose bag to distribute the weight. I had a Red Cross medical kit divided into compartments, one for a little sack of coffee, one for each of several items indispensable in preparing a camp meal. This was fastened to the saddle back of the left stirrup by two snaps. I found this a great convenience and well worth its weight. On the opposite side I had a small cooking pot, a small frying pan, etc., tied in a gunny sack. Later I used in place of it a regular pouch also fastened on with snaps. I carried no fire arms. I had shipped many things on

ahead to be picked up as needed; for instance, a lot of stuff to Spokane, Washington, to be used later in the desert.

We started out under a handicap, *Queen* having just recovered from a severe cold as a result of a hard tryout I gave her in late February on our way home, and the sudden change of climate and altitude. Later I tried always to avoid such a combination.

As per plan we were at the Mile Stone back of the White House at noon April 1, 1925. There were present, beside a few newspaper reporters and photographers, Colonel Sterrett, then chief of the Remount Division of the Army; Major Scott, assistant chief; Major A. A. Cederwald, executive officer, now editor of *The Remount*, a couple of globe-trotters and others. The officers, especially, wished us luck. But they seemed greatly to doubt our ever completing the trip. That night we stayed at our place near Silver Spring, Md.

Next morning out on the country road away from the noise and strange sights *Queen* seemed rather listless. The principal reason was not hard to solve. In coming through Silver Spring I had been surprised to find we had a full hundred pounds dead weight by the scale. I made up my mind right then that the longer I persisted in the mistaken notion that I could carry all the conveniences of civilization on a horse and expect her to keep going the less chance we had.

A friend of ours had invited us to stop to dinner as we passed. As I devoured his chicken I arranged with him to deliver most of our pack in Baltimore next day. I dispensed with the horse blanket, extra suit, saddle bags and contents less grooming kit, and "cupboard" utensils. Storm rubbers I threw away. We were rid of about forty pounds. *Queen* tripped it off as though relieved of the proverbial brick house. Too soon we would have to take it all on again and much more. The discarded equipment went into a Parcel Post package, and from that time on I kept it going, changing the articles from time to time.

Right from the start we had a very hard time in finding shelter for *Queen*. Nearly all the barns were turned into garages. The very first night from home I led *Queen* from one prospect to another for over an hour, then fed improper feed (carried hay loose two blocks) in a narrow stall with no bedding.

On April 13 we pulled into New York City. We had not had too much trouble with the traffic, until passing under the Elevated at 66th and Columbus Avenue. A train rushed over. That was too much for *Queen*, a green country girl. She ran over a block with myself and pack in the dense traffic. But she was not hit, nor was she once

touched by a car on the entire trip, though I estimated we met or were passed by 162,352 cars—estimated conservatively from counting one day's traffic, of hardly average number. We had some close shaves, but *Queen* was alert and nimble. In fact she was and is high strung.

Before we reached New York we nearly met our Waterloo in the way of hard and rough-surfaced roads. In trying to keep the "shoulder," *Queen* often would be half on, half off the rough edge. This and crushed rock and gravel so wore the outside of the left front rubber pad that she got to rolling out on that foot. I did not discover this quite in time to prevent some strain on muscles, ligaments and joints. Though she was never laid up with it, that leg had to be taken care of the rest of the trip. A horse of poorer metal, or one too fractious to be easily handled would have quit right there. We were fortunate in finding an expert shoer. We gave her an extension shoe in order properly to distribute the weight on the foot, thus relieving the undue strain. That was the only special shoe I ever had made. I had her reshod, all told, twenty-two times on the trip, besides resetting a shoe a few times myself when I could get the tools. Shoeing was one of our major problems. Too many "blacksmiths" who have no knowledge of a horse's anatomy are shoeing horses. One job by such a one nearly proved disastrous. I learned to inquire ahead for either an old army shoer or an honest-to-goodness race-horse man and, so, got by. Those who do not know how are usually the last to loan either shop or tools. I discarded the pads south of the Great Lakes, when we were over the worst of the pavements.

On April 26, we rode into Longwood Riding Academy, Boston, at 11:30 P. M. We had spent five hours and ridden nearly across western Boston in quest of a stall. We had ridden that day only forty-five miles, all but seventeen of which were on hard pavement. But, as I estimated, I had taken out of her an amount equal to eighty miles of normal natural travel. I had some idea then, and have since been fully convinced, that if one expects to keep a horse going he must consider what the *conditions* are taking out of his horse more carefully than the miles traveled. Especially is this true when it comes to the horse's underpinning. With this in view I have traveled twenty miles where I knew I had good footing rather than twelve on hard pavement and saved horse flesh. As a basis for deduction I learned from close and long observation to estimate it this way: one mile of pavement takes out of a horse more than two miles of good dirt. One mile of road that is rough and inflexible, is still worse. One mile of strange city traffic reduces a horse as much as three miles of good

dirt road in the country—there is the nervous strain. A mile of average gravel road takes more out of a horse than one and a half miles of good dirt. And I find that when I *over strain* my horse by continuing too long upon unnaturally hard or rough and inflexible footing I must pay back the distance so gained, with a much greater penalty than I must pay for just plain over-fatigue under natural conditions.

As we proceeded northward up the Atlantic Coast we faced for several days a cold wind off the ocean. *Queen* missed her winter coat of long hair. Several nights when we had not a warm stable I divided the blankets with her. Still her cold returned.

It is well known that it is not safe to move a horse about too much in spring. I began to wonder if, for one reason, a horse does not put out more vitality, especially as to protein in throwing out his new coat, than we realize.

I also had a lot of trouble in finding the proper feed locally. A few times the best I could do was a direct change from oats to corn and against my better judgment fed nearly a full feed. In such a case whether we feed too much, and so damage the horse, or whether the safer policy of cutting the ration is followed there is a great loss of vitality. You know that, so did I. Still it takes a lot to make us heed it. Several times I was fortunate in not meeting utter disaster. I in part retrieved my error by letting *Queen* miss a feed and then "sweeping her out" with a large bran mash containing a little salt, about a dram of nux vomica, and half an ounce of ginger.

On April 30, we pulled into Portsmouth, N. H. in a cold rain. We crossed the river into Kittery, Maine, and got a signature from the town clerk.

Up hill, down dale, we reached Concord. Near Lake Sunapee we passed the remains of last winter's snow drift. Over the Green Mountains to Rutland and on to the U. S. Morgan Horse Farm near Middlebury, Vt. But here we are near the limit of our space and scarcely started yet. Please follow the map.

We spent Nov. 20, 1925 to Apr. 12, 1926, in winter quarters at Princeton, Ill., after making the loop. We lost nearly three months in Montana on account of a fractured knee (my knee) as a result of a kick from my pack horse—formerly mentioned. This threw us off our schedule and caused a change of route. We crossed Eastern Washington and Oregon in the early winter of 1926-27 often facing severe snow storms. We celebrated New Year's, 1927, in Alturas, California. At Needles, California, flowers were in bloom. Near Flagstaff, Arizona, we took refuge from a blizzard in an old root cellar of a deserted ranch.

We crossed the Navajo and many other Indian reservations. For a distance of 473 miles we never saw a railroad. Many times we had two days' journey between human habitations. Feed we packed or went without for three days at a stretch—I had only the one horse—days without a spear of grass—often more than twenty-four hours without water. I usually started across those stretches with one army canteen of water. Once on reaching a certain water hole I'd been told



In the Arizona Desert

about I found the banks strewn with animals that had drunk and died. We "checked it out" until we reached civilization.

Space does not admit of complete details of feeding, one of our major problems. I fed about everything a horse ever ate, including bread and molasses. About Alturas the only grain was rolled barley. I found I could with impunity feed nine pounds per day as against twelve pounds of oats. When I again came to corn I did not repeat my former mistake of putting sympathy in place of prudence. Where the only roughage was a few nibbles of hard dry bear grass or a bite of sage brush or shad scale I found I could with impunity feed an extra feed of oats at midnight—if I could get them. Failing oats I found four pounds of bran and one and a fourth pounds of good shelled or cracked corn to be a good substitute for four pounds of oats—if I could procure them.

Weeks at a time we were never under shelter of any kind. Once I took refuge from a storm in a cave from which I first removed some prehistoric human bones, giving them "Christian burial" in a niche. Queen was less fortunate. She could not get in so stood tied to a rock. There were long stretches where the ground was white with alkali

that, but for lard, tallow and tar, would have eaten the feet off *Queen*.

Caught behind the Mississippi River flood. Weeks of lost time and dodging about. Caught in the Texas Tick Quarantine and a tedious back track of over eighty miles to a Federal dipping station, besides four days wait in the disease infested post-flood area.

The most dangerous of these diseases was charbon (anthrax) of which horses, mules and cattle were dropping dead all across the post-flood area. This disease can be taken from drinking the impure water, gnawing the roots of the short grass, in which bacteria live twenty years, or from the bite of the dreaded charbon fly. After I learned this I kept *Queen* off the infected grass, gave her only well water, fought the flies, kept her toned up on nux vomica, kept her vitality up—and thanked Heaven when we were out of it.

Another danger is locally known as "foot evil" (not foot and mouth disease). A parasite or microscopic animal finds an opening about the coronary band. Infection follows. The hoof comes off. Often the horse dies. I avoided this by avoiding places where the sun was excluded, keeping the feet clean and daubing the top of the hoofs with zinc ointment. Then hundreds of miles in a stock car in compliance with the law (this railroad travel was not counted in our mileage), to Natches, thirty miles east of where we were quarantined. This thirty miles is the only break in this "Longest Horseback Trail"—unless we count ferries. North around the tick area, thence south to Florida, which we entered in the hottest season, August 2, 1927.

Then the long grind northward across Dixie, and at the Mile Stone again, November 4, 1927. Major Scott, then Acting Chief of the Remount, was there with other army officers and identified *Gypsy Queen* as the mare I had left that spot with on April 1, 1925. *Gypsy Queen* had traveled on her own feet under saddle 11,356 miles.* She had gained seventy-five pounds.

You are wondering what happened meanwhile to the strained leg. Where cold water was plentiful I used it: stood her in it, showered with it, applied it, when she was standing, with burlap wrapped loosely as a bandage. Burlap admits the air. I kept the fever out of the feet with water, mud, packing; stood her in cow dung—when obtainable.

For over 1,000 miles where water was not plentiful at all times

*Note: Our mileage was recorded day by day. If in doubt, I recorded the minimum distance. In footing up hurriedly at the end of the trip, I made a slight error, giving the distance as 11,389 miles. Later, in trying to carry the mileage while computing other data hurriedly, I admit another error: first giving it as 11,532 miles. Finally, I employed a mathematician in Government employ to check and verify my more leisurely compilation of figures, finding those given above to be correct. This is a small matter. But, as this seems to be the only trip of the kind on record, the reader is entitled to verified data. Author.

traveled her in an elastic (knit) bandage and cotton, and a good "brace" or lotion. I would wrap the sheet of medical cotton from pastern to the knee. Then giving the bandage two wraps on the pastern I brought it up pressing the surplus cotton into the groove between cannon bone and flexor tendon. I wound the bandage reasonably tight, fastening it below the knee with two safety pins. I tightened this several times a day. At noon I would air the leg. At night—after airing—I would sop the hair full of the "brace," put on an old cotton, wrap an old bandage loosely and soak the cotton by pouring it full of the brace. Thus I kept her going without undue pain and virtually cured the strain under saddle. I don't say she is quite as sound as though never strained but she delivered the goods and showed no signs of soreness afterward until we again hit the pavement in nearing home.

When it came to long, hot stretches under pack I had trouble with *Queen's* back. I tried everything. Finally at Shreveport, La., I got a Felt-Less pad. Its all simple when you think of it. This pad is made of *cool* instead of *hot* material. In the hottest season and the hottest parts, I cured the back.

The miles I gave were *actual* miles. Aside from this, I estimate I had taken out of *Gypsy Queen* on account of unnatural, hard and rough footing alone more than 47,000 miles of good old turf would take. Hundreds of miles where she balled up with snow we count as a natural occurrence. She never once lost her feet even on unavoidable frosty, slick pavement. We forded some bad streams. We averaged roughly twelve miles a day for the 948 days out. I had been in the saddle 580 days, counting any day we progressed one mile or over, averaging over nineteen and a half miles per day and about seven hours in saddle.

I do not believe all the accidental delays could rightfully be called beneficial rests. The environment was usually a detriment.

Queen is well and happy and kicks up her heels like a three-year old. This spring she produced a fine colt for the next trip.

Tactics of a Mechanized Force: A Prophecy

By LIEUTENANT COLONEL K. B. EDMUNDS, *Cavalry*

THE development of motor driven vehicles has progressed far enough to make it possible for us, without undue strain on the imagination, to visualize a machine capable of maneuver and attack across nearly all types of terrain at a speed of from ten to sixty miles an hour, armored to the extent of being invulnerable to anything but a direct hit by artillery, and having the radius of action and freedom from mechanical breakdowns of an automobile. A unit made up of such machines may have within itself the fire power of artillery, machine guns, and automatic rifles, and may possess a shock effect and rapidity and range of maneuver greater than those of Cavalry.

We are already in the habit of referring to such a unit as a "mechanized force." Discussions of it are appearing frequently, but it is doubtful if we have yet realized the profound effect this new arm will have on our tactics if the machine on which it is based is perfected to the extent indicated above. The tendency of the existing arms is to adapt the new arm to our present tactics. What we rather must do is to change our tactics to fit the characteristics of the mechanized force.

The Infantry, still worshiping at the shrine of the "Queen of Battles," whose creed is that the sole function of all arms is to assist the advance of the foot soldier and, misled by the characteristics and functions of the World War tank, is inclined to see in this new engine only another auxiliary. But, as the speed of the tank increases from three to sixty miles an hour, as its radius of action rises from five to a hundred miles, and as its mechanical faults are eliminated, it becomes a weapon, not of the infantry battalion, but of the field army or of General Headquarters. It becomes a separate arm characterized by mobility, fire power and shock, capable of self-sustained action, of rapid maneuver, and of dealing the decisive blow in battle; a mobile reserve in the hands of the commander-in-chief, used at the decisive stage of battle to overthrow the enemy by shock.

The Field Artillery, taking a defensive attitude, depends on being able to stop the assault of a mechanized force by gun fire and is trying to adapt its comparatively clumsy and unwieldy tactics and system of fire control, developed to support the slow stages of an infantry attack

or defense, as well as the anti-tank gun of the World War, to this end. It does not give sufficient consideration to the difficulty of getting a direct hit on a rapidly moving target, or the great maneuvering range and surprise effect of a mechanized force. The function of the Artillery will be to support the attack or to support the counter-attack. It cannot stop either one.

Our Cavalry is instinctively hostile to any machine which may supplant the horse, and inclined to disparage its effect. We are retreating to mountain trails and thick woods, hoping that no fast tank can follow. Our policy, on the contrary, should be to encourage the new arm, experiment with it, and bring out its characteristics, both favorable and unfavorable, since the place of the new arm in the army team, its missions and tactics, are far closer to those of Cavalry than they are to any other arm. The cavalryman is best able to understand its potentialities. It is improbable that a machine will ever be invented that is more efficient for all military purposes than the horse. But, whether our cavalry divisions are completely mechanized or not, cavalry missions and cavalry tactics will remain, and the mechanized force will act in conjunction with the Cavalry.

Composition of the Mechanized Force

Experiments and study, both in this country and in England, indicate that the composition of a mechanized force will be somewhat as follows:

a. A shock component (assault echelon) consisting of light tanks, armed with the one-pounder, or some other light cannon, and the machine gun.

b. A mopping-up and holding component, consisting of machine gunners and automatic riflemen, in carriers capable of rapid movement across country.

c. Fire support, consisting of motorized artillery capable of rapid movement across country.

d. Auxiliary troops (engineers, anti-aircraft, etc.) in motorized carriers.

e. Motorized trains, at least part of which will consist of carriers capable of rapid movement across country.

f. Present plans call also for a component of armored cars; but, as the speed and mechanical reliability of the tank, or combination wheel and track vehicle, increases the necessity for the armored car will disappear.

With the possible exception of part of the trains, all these components should have the common characteristics of speed, maneuver-

ing ability, radius of action and protection against any fire but a direct hit by artillery. Homogeneity in these characteristics is essential, and probably the eventual development will be that all vehicles, to include the combat trains, will be mounted on the same chassis as the light tank. The artillery will have either self-propelled mounts, or tank tractors with trailers of such a design that the speed of the tractor will not be impeded thereby on any terrain.

The size decided on for the force will depend on tactical considerations such as the desirable frontage to be covered in its attack and the dispositions in depth desired, as well as on the limitations imposed by logistics. Study and experiment must continue on these points, but as a basis for discussion the following arbitrary assumptions may be made:

Frontage for attack.....	5000 yards
Number of waves in assault echelon..	3
Additional reserve.....	Equivalent of one wave
Frontage for a single tank.....	100 yards

Using these figures, we get fifty tanks in each of the three waves of the assault echelon which, with the allowance for the general reserve, gives a total of two hundred tanks.

For the holding component we may take as a basis the machine guns and automatic rifles of the number of front line battalions necessary to hold a front of 5000 yards, i. e. four battalions. These amount to 48 machine guns and 216 automatics. Allowing two machine guns or eight automatics, with their crews, to each carrier, we arrive at a total of about fifty carriers for this component.

For the artillery component we may assume about the same number of batteries as are necessary to support the attack of an infantry force on a front of 5000 yards, viz. about 25 batteries, or 100 guns. Ammunition and service vehicles will raise the number of vehicles to about 200. The requirements of mobility will limit the calibres to the 75-mm. gun with, possibly, the 105-mm. howitzer.

Granting the assumptions of characteristics and organization, it is now possible to come to certain conclusions:

a. The number of vehicles in the mechanized force, exclusive of trains, need not be over five hundred.

b. The road space of its combat units will be about 15000 yards, allowing 30 yards to each vehicle.

c. Assuming a marching rate of only ten miles an hour, the force can pass a given point in about one hour.

d. It can be disposed for attack from single column in about one-half hour.

e. It can move from a position in reserve to any point on the front or flank of a field army in three or four hours.

Tactics of the Mechanized Force

Its tactics must be primarily offensive: a straight drive to its objective, either in attack or in counter-attack. The shock component will drive rapidly through the enemy's defense, breaking up his defensive organization of machine guns, infantry weapons, anti-tank guns and wire, continuing through his supporting artillery to the objective of the force, whatever it may be; then reforming behind its holding component, possibly to meet the enemy's counter-attack.

The artillery component, advancing by bounds from one firing position to another, will support the stages of the attack. Its principal targets will be those weapons of the enemy most dangerous to the shock component, viz. anti-tank guns and enemy tanks. In the last stage it will move to positions to support the holding component. Almost coincidentally with the advance of the shock component from its assembly positions, the artillery will advance rapidly to previously reconnoitered positions for direct fire. From these it will open on the enemy's anti-tank guns as the latter expose their locations by fire. To the objection that such tactics will expose the artillery to destruction by the enemy's supporting artillery, it may be answered that the time the attack lasts will be a matter of minutes, not of hours, and any counter-battery by the enemy will draw his fire away from the shock component.

The holding component, following the shock component closely, will complete the overthrow of the enemy on his organized position, and the capture of his supporting artillery within its zone. It will then move to the final objective which it will organize and hold, supported by the artillery component, providing a pivot behind which the shock component may rally, reorganize and prepare to meet the counter-attack of the enemy's mechanized force.

The defense against such an attack will be a counter-attack by a mechanized force.

Place of a Mechanized Force in Combined Arms

Such may be the tactics of the mechanized force within itself. Before considering the place and missions of the force with the combined arms it is necessary to say that, in the opinion of some students, there will be no combined arms; that future armies will be completely

mechanized and will consist simply of a collection of mechanized units like that described above; or that other arms will be relegated to areas which, by fortification or by the nature of the terrain, are impassible to a mechanized force. Granting this, it might be said that the shock component of the force is the future Cavalry and the holding component the future Infantry, but this is going too far for intelligent discussion at this time. It will certainly take the lessons of the battlefield to effect such a revolution, and we can expect to enter the next war with Infantry and Cavalry *missions* and *tactics* essentially as they are at present, the mechanized force being an arm added as aviation has been added. The theories of the extremists in mechanization are not likely to have more effect on our doctrine than those of certain extremists in aviation. Our units may be largely motorized and mechanized within themselves; organization and equipment may change; but the conception of Infantry as a comparatively slow-moving arm intended to gain ground, to seize and to hold; and of Cavalry as an arm of mobility, to cover, to reconnoiter, to maneuver and to exploit will not change. Twenty years ago it could be said truthfully that the infantryman was a foot soldier armed with the rifle and bayonet. Infantry now has machine guns, automatics, mortars, one-pounders, grenades and tanks; it is often transported in trucks; but its missions have remained.

Fast tanks, may of course, be attached to infantry or cavalry divisions, just as cavalry squadrons may be attached now. However, this paper is concerned with the mechanized force as a separate arm, having the same relation to the field army as that of our cavalry divisions.

It seems evident that an army commander will hold his mechanized force in reserve until the other arms have developed the situation. It can then be determined at what part of the front its blow will be most effective, and where the character of the terrain will permit its use. If the maneuver decided on be an envelopment, the infantry divisions will make a holding and enveloping attack on the enemy's front line units. The Cavalry, operating on the flank selected for envelopment, will form a screen behind which the mechanized force will reconnoiter for its assembly positions, select the ground over which its attack will pass, and when its reconnaissance is completed, move to its assembly positions. Since this movement will utilize the roads it is important that it be made behind a screen which will insure physical possession of the routes of advance. The movement will be made under cover of darkness in ample time to refuel at the assembly

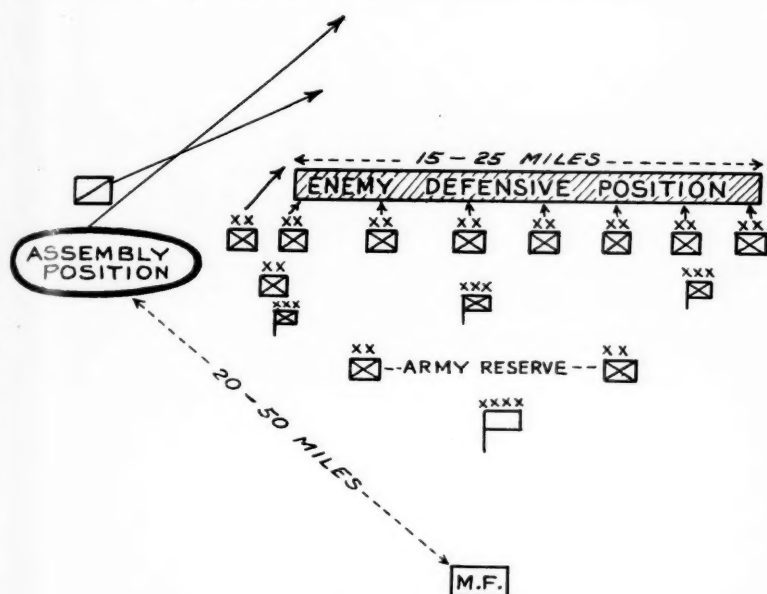


Figure 1

positions and start the attack at daybreak. The attack will probably be directed at objectives in rear of the infantry envelopment. The Cavalry will follow, either in exploitation or to connect with the infantry flank. (See Figure 1).

From this it can be seen that, in an envelopment, the missions of the Infantry and Cavalry will not be essentially different from what they are now. The maneuver of the mechanized force is simply added. The penetration, however, will differ from our present tactics in that the actual break in the enemy's defensive organization will be made by the mechanized force rather than by the infantry divisions. Having made the break, the force will continue through the supporting artillery to objectives in rear. The Infantry, following, will exploit against front line units and supporting artillery, widening the gap. The Cavalry will pass through the gap, either in exploitation or as a connecting link between the mechanized force and the Infantry. (See Figure 2).

Against a zone defense it will probably be necessary to assign limited objectives, the mechanized force first preceding the Infantry through the outpost and delaying areas, then reorganizing, during the period of infantry advance, for the assault on the battle position.

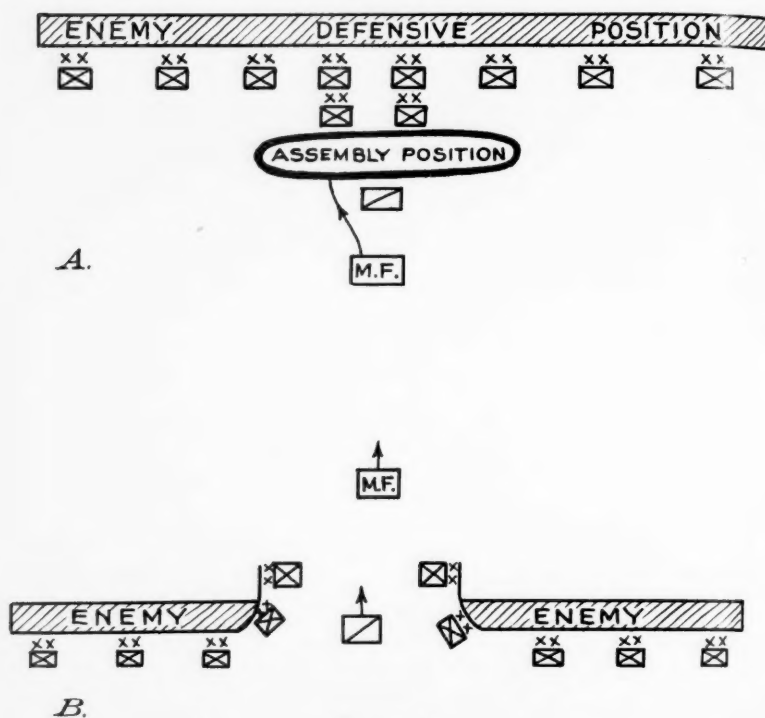


Figure 2

As has already been stated, the objectives of the mechanized force in attack will be well in rear of the enemy's front lines. Such objectives may be: enemy reserve divisions, army artillery, command posts and lines of communication, areas of tactical importance to its own army, critical areas essential to the enemy in his withdrawal; or may be the *opposing mechanized force*. The last named may well be the first objective for, like Cavalry and Aviation, a mechanized force cannot take full advantage of its characteristics until it obtains mastery over the corresponding arm in the ranks of the enemy.

On the defensive, the mechanized force must also be held in general reserve. Having determined the direction of attack of the enemy's force by reconnaissance, it will counter-attack, endeavoring to strike its opponent while the latter is still in motion, or before he can re-organize on his objective.

The potentialities of the mechanized force for maneuver and surprise are obvious. From a position many miles in rear of its army it can, within a single night, move to its attack position and can then start its attack at daybreak. It cannot be stopped by machine guns

and wired trenches. Its fire power approximates that of a division and its shock effect is greater than any arm which we now have. In effect the mechanized force will restore, to the main battle, tactics which the limitations of the horse and the development of the machine gun, the automatic and wired defenses have caused to disappear: the tactics of heavy Cavalry. It is important that we do not allow its wings to be clipped by too great conservatism, by the assignment of limited objectives, by associating it with assault battalions, or with corps and division Artillery.



Rules

By CAPTAIN CHARLES R. JOHNSON, *Cavalry.*

CHARLEY DALY once said, "No rule is absolute. Break any rule to succeed." Many of us remember one of his quarterbacks, who had the ball in his own territory, second down, and six inches to go. That quarterback broke the rule. He called for a forward pass. The pass went. I do not remember now whether it went for a touchdown but that is not material to the issue. The indisputable fact is that the pass was unexpected, and that it succeeded.

It must be admitted that we are creatures of rules. Take any training regulation as an example. Read two consecutive pages, and you will find at least five rules. Try it.

Let me cite an example. I have turned to *Employment of Cavalry*, and have opened it at random. I find that I have opened at page 118, and the first complete sentence on that page is:

"(4) When adequate fire support cannot be furnished by the pivot of maneuver and centrally located weapons, additional firepower is attached to the maneuvering force." I give you my word that I have picked this sentence honestly. There are other sentences in the book better adapted to illustrating my point. Let us discuss it.

That rule is an absolute statement. How will an unimaginative man construe it? You realize that the great majority of us are unimaginative. The tendency is this: if no good machine gun position exists near the pivot from which it is possible to cover the approach march, the unimaginative breed will, by rede and rote, attach forthwith a platoon of machine guns to the squadron that makes the envelopment. Why will he attach a platoon? Why not a troop? Why not a section? Simply because in his memory he senses that he has read the statement "a squadron with a machine gun platoon or troop." As a matter of fact, he really read that statement under the heading "Advance Guards."

Anyway, he goes ahead and attaches a machine gun platoon. Now, here is the question: Did he consider whether or not the enveloping squadron needed additional firepower? True, it was impossible to furnish "adequate" fire support from the pivot, and the word "adequate," of course, might be analyzed, and it might be argued at length that the use of the word "adequate" implied that the squadron needed the additional firepower, but remember that we are soldiers, not lawyers or etymologists, and we have no time to argue such matters while we are observing from hill 626-a.

Very apparently the entire issue is this:

"Does, in this situation, the maneuvering force need additional firepower?" If it doesn't, then the rule quoted is wrong as quoted, and by our attachment we will have violated our old friend "Economy of Force," likewise "Simplicity" and several others.

In other words, to make the rule good, we must presuppose that a maneuvering force needs additional firepower, regardless of the size, nationality, morale, equipment, dispositions, and honorable intentions of the enemy, and irrespective of the terrain over which the envelopment approaches. Such a supposition is on the face of it an affront to our horse-sense.

Don't mistake my attitude. I am not an iconoclast; I have no use for destructive criticism. I have no wish to tear apart that excellent text, *Employment of Cavalry*, for which I have a profound respect. I am only attacking our natural human and present-day tendency to reduce all things to rules, a result of human inertia. Recourse to rules is the refuge of the man who is too lazy, or too torpid, to reason out the governing circumstances.

Now, let us go a bit further; let us enter the conference room of an advanced class at one of the service schools, and listen in on a conference problem. What I cite, I believe, is typical.

The instructor has called upon Captain X for a solution of first requirement. Captain X states that his flank guard is a troop (1/12th of the command). Upon being told by the instructor that in this particular situation a squadron would have been preferable, Captain X says,

"But, Major, what is the *rule*?"

The major then explains, patiently, carefully, and at length, that, in the situation being considered, the main body cannot, due to its mission, come to the support of the flank guard, and that in such an instance the size of the flank guard is determined by the strength of the enemy, rather than by the size of one's own main body. A very good explanation, as far as it goes.

Captain X, however, who, just like all of us, is lacking in imagination, goes a bit further, and queries:

"Yes sir, I understand that, but what *fraction* of his size should his flank guard be?"

And there you have it. By the Gods and again by the Gods: what instructor can answer that question? The answer depends, and has to depend, on a multitude of conditions, varying in each different situation. Yet the only recourse open to the poor instructor is to answer:

"That depends on the circumstances." *And it does.* Yet the in-

structor has been forced to fall back on a seemingly weak answer, an answer whose strength will be admitted by only the broadest minded.

And that brings us all to the kernel of this article. **WHY DEAL WITH FRACTIONS? WHY SPECIFY DISTANCES?** Why state that the advance party will precede by from so many to so many yards? There is in truth but one test to a solution, and that it to ask one's self the question.

"Does my decision (plan—order—etc.) (strike out words not applicable or desirable) accomplish my mission? Am I using good common sense? Am I chasing poor, tired soldiers all over the map when there is no necessity for so doing?"

Let us get together, those of us who instruct, and refuse to fall back weakly upon rules, except where we can quote them and break them and at the same time show the student that we are using better judgment by flaunting them. Then and then only will we accomplish our mission and shove our disciples out of the lazy rut known as Rule of Thumb.



Prevention of Injuries and Diseases in Army Animals

By CAPTAIN EDWIN W. ROGER, V.C.

Reprinted from the March, 1930, Veterinary Bulletin.

WE ALL are familiar with the methods of prevention of most injuries and many diseases but we cannot be present with the various organizations at all times so the number of animals on sick report will depend to a large extent upon our ability to impart this information to others. Therefore, we should instruct all personnel which has to do with animal and stable management as fully as time and opportunity will permit.

Three very good opportunities to do this are as follows:

1. Be present with a troop or battery at each period of stables.
2. During your lectures to the officers' class on hippology. On a cavalry post the veterinary officer is required to conduct the class in hippology which usually consists of twenty lectures of one hour each or ten lectures of two hours each. Several of these lectures could be used to good advantage in discussing the prevention of injuries and diseases.
3. At the stable sergeant's school here there is a stable sergeant and one or more stable orderlies from each of the organizations. This school usually lasts for four months of sixteen lecture hours per month.

Under the heading of "Stables" the writer wishes to mention a few things which are worthy of discussing with the troop commander or stable sergeant during the grooming period.

Abrasions from a rope result from carelessness in tying the halter shank. When the regiment is in the field there are always a large number of animals on sick report from rope burns and other traumas unless the importance of precautionary measures has been impressed on those who are responsible. Many of the troopers will tie the halter shank at a most improper length. In the field the animals are usually fed hay from the ground and many troopers purposely tie their mounts at the end of the halter shank so they can reach the hay after it has become scattered. The animal should be tied at a length which will only allow him to reach the ground immediately in front of him. The picket line guard should keep the hay raked up within easy reach of the animals. The importance of this

should be in the minds of the veterinary officer, the troop commander, and the stable sergeant whenever they are near the picket lines.

Saddle abrasions on the sides and top of the withers are of frequent occurrence, especially after the troops have been in the field a few days and the animals have commenced to lose weight. All animals should be inspected daily when in the field for these abrasions and attempts made to remove the cause, otherwise, they may develop into cellulitis, necrosis, or fistula. As a rule the cause of these abrasions is the shrinkage of the muscles and fat in the dorsal region just back of the withers where the front part of the saddle bars rest. The conformation of the withers of some horses is frequently a predisposing factor in causing sore backs. Both types of injury can be prevented or relieved and given a chance to heal while being ridden by folding the saddle blanket so as to elevate the front part of the saddle and stop the rubbing on the withers. The method recommended is as follows: Fold the blanket in the usual way and holding the front edge of the blanket against the withers about two or three inches from the top, take the front corner and raise it upward and backward until the front edge of the blanket is parallel to the spinal column. Fold the other side in the same manner, put on the saddle, and it will be found that the front of the saddle has been elevated enough to prevent rubbing against the withers.

The advisability of keeping animals well clipped is another subject to discuss with the troop commanders. The importance of this, especially in the tropics or on the Mexican Border, should be emphasized. The properly clipped animal will present a neater appearance and will require from 10 to 20% less forage to keep him in good condition and he will be healthier and more easily groomed. Clipping should be done if possible just before starting on long marches or field maneuvers during hot weather for invariably it is the long-haired animals that are affected with heat stroke and exhaustion. The writer has seen many animals die from heat exhaustion while in Texas but does not recall ever having seen a recently clipped animal affected. The column is usually so long that it is impossible for the veterinary officer to inspect every animal during the ten-minute-per-hour halts. The energetic troop commander will look over all of his animals at every halt and any animal that shows excessive fatigue is relieved of his rider and equipment and taken along with the column as a "led horse" or brought into the next camp at a slow gait. The troop commander who does not look over his animals at every halt is the one whose non-effective rate runs high and the attention of the commanding officer should be called to this omission when it exists.

Thrush is another subject which should be taken up at "Stables." The veterinary officer should select a case of thrush, and one of atrophied frog with contracted heels which usually go together, and make a five-minute talk to the organization on thrush and its attending evils. Have every man examine the case so that he will be able to recognize it should his own mount become affected. The veterinary officer should discuss the cause and prevention of the condition emphasizing the seriousness of the disease if it is allowed to go on without treatment. Bring out the probable effect of softening of the frog which makes this structure more susceptible to injury from stone, snag or nail wounds. Describe the conditions which often follow neglect of thrush, such as canker, atrophy of the frog, contracted heels, fractures of the hoof (the so-called quarter-cracks) and pododermatitis circumscripta. It is also well to call attention to the number of days lost by animals affected with these conditions during the previous year. Mention how easy the disease is to control in the early stages and ask every man to report to the stable sergeant, any case which shows up in his mount, who will have them sent to the hospital for treatment.

The following are worth while subjects in all Hippology and Stable Sergeant's schools: *Lucilia macellaria* infestation, (screw worms) which is quite prevalent in stations located in the Southern States, especially in Texas. In discussing this condition the writer likes to take the class on a tour through the corrals and point out the various breeding places of flies, showing the student the larvae of the flies in these places and giving the methods of eradication. If possible, have a supply of the adult flies and larvae so that the students may study and learn to identify them. Explain the short time required for the eggs to hatch into larvae, (four to ten hours) the parts of the animals most often affected and how to prevent infection. Fresh wounds should have all the blood washed off; older wounds will not become infested if they are kept free from exudates and odors. Next in order is the condition of the sheath. When the sheath is allowed to become foul it makes a favorite place for deposit of eggs by these flies. This can be prevented by keeping the sheath clean. Some organizations require the stable crew to wash the sheaths regularly once each month. A better system, especially in the summer months, is for the stable sergeant to examine all sheaths every two weeks and have those sheaths washed which need it. Some horses will have a dirtier sheath in seven days than others will in as many months. A few horses in every mounted outfit acquire the habit of urinating without extending the penis and these are the

animals which are brought most frequently to the hospital with screw worms, and warrant frequent inspections. Animals in pasture should be examined daily for evidences of infestation. As many as thirteen cases were admitted to sick report in one day with infestation of the penis or sheath or both. Symptoms which are diagnostic are swelling of the sheath, dark colored discharge from the sheath if the larvae have destroyed any tissue, switching of the tail with a jerky movement, stamping the hind feet, and trying to bite the sheath.

If one will look through the file of 115 M. D.'s in almost any station he will find that at least one-fourth of them give as the cause of admission "Wound, lacerated" or "Wound, contused." It is my opinion that four-fifths of these wounds are the result of kicks from other animals. Anything that produces 20% of sick report cases merits serious attention. My method of prevention may differ somewhat from the others.

In the first place, get the stable sergeants interested and thus their co-operation. The stable sergeant's school usually calls for 64 hours instruction, and, unless the instructor is a better talker than the writer, he runs out of material before the time is up and is glad to find some subject to fill in with. I go through the file of Forms 115 to find out how many cases were admitted to sick report the result of kicks, and note from which troops they came. This list is read to the sergeants who are surprised at the large number. Ask each sergeant what he has done to reduce the incidence of these cases. You may get a pointer from their answers or you may not, but at least it helps to get them interested and your methods of prevention will now find sympathetic listeners.

A very good preventive is to have each stable sergeant pick out the known kickers in his troop and designate a particular place for these animals to be tied; at the end of the picket line, to the fence, or other point out of reach of other animals. While in stables these animals should be kept in stalls separated from the others and if this is not possible kicking bars should be installed which would prevent them reaching the animals next to them. These kickers should never be allowed to run loose in the corrals with other animals. The stable sergeant will have to have the co-operation of his troop commander to put this system into effect, and will invariably get it.

All of these known kickers should be examined by the veterinary officer for evidences of cryptorchidism. We are not supposed to purchase any of these animals but sometimes they slip by the board. They will do considerable damage if allowed loose in a corral with other horses. The writer knows one such case where a cryptorchid

put nine animals on sick report in one day from kicks and bites. This class of kickers is the most easily handled. A few days after the operation they can be allowed to run with other animals with safety.

At the average Army post penetrating wounds are the cause of admission of about one-fourth of the entire sick report. Street nails will be found to be the chief offenders. It has been demonstrated that the number of cases of penetrating street nails as a cause for admission can be materially lowered if the necessary effort is made. Some of the larger Army posts have a large magnet arranged as a drag which is hauled over the streets, alleys, parade grounds, and other places much traveled by animals. These magnets are supposed to pick up all loose nails and wires that it passes over.

At stable sergeants' school we took up the subject of penetrating wounds, showing that for the previous year between one hundred and fifty and two hundred animals were on sick report from one cause: "Wound penetrating, street nail." The average number of days in the hospital or on sick report for each case and the total number of days lost were discussed to bring out the seriousness of this condition. Then the stable sergeants were told that they would be held personally responsible for a reduction in the number of cases of penetrating wounds from their troop in the coming year. It was then explained how they might lower the number of cases by making a daily inspection of their corrals and stables for loose nails and for boards with nails in them. Each stable crew to police up all loose nails in their area and especially after each rain, for at that time more loose nails are visible than at any other time. This area included their own stables and corral and such part of the road as was designated. They were instructed to see their first sergeants for additional help when needed. In the veterinary hospital area the same procedure was carried out. Some of the soldiers of veterinary detachment were sentenced to so many hours of picking up nails for minor infractions of orders. As a result, the number of cases for the year was reduced to approximately two-thirds of what it had been for the previous one.

The number of animals on sick report from preventable injuries and diseases may thus be lowered by acquainting the personnel with this phase of veterinary sanitation. Opportunities are presented from time to time to discuss these various subjects and the alert veterinary officer will not fail to take advantage of them.

"In Them Days . . ."

LIEUTENANT C. C. CLENDENEN, *Cavalry*

YOU recruits can that chatter, see? And you, Willie Smith, if the Cap'n heard you use them words, you'd go on K. P. for a month. Why, it was just yesterday he says to me, "Sergeant Bennett," he says, "There ain't goin' to be no more swearin' out of these here recruits. If you hear any more of that kind of language out of 'em, you take 'em and wash out his mouth with G. I. soap." Y'get that, Smith? I mean you. He says, "As long as I'm skipper of this here troop, I'll do the swearin' for the whole damn outfit." And when he ain't here, *I'm* runnin' the troop, see?

I wish the canteen 'd get some decent tobacco. Y' can't get anything there no more except stuff that ain't supposed to bite your tongue. I want to be able to *taste* my tobacco. Gimme a match, Kurzinski. There. Might just as well smoke cornsilk. Things didn't used to be that way when I was a recruit. Soldiers was soldiers, in them days, and not a lot of kids, just run away from their mothers. You could get real beer at the canteen, too; none of this four percent belly-wash.

Yeah, the whole Army is different now, from what it was in them days. What's that? Oh, in a lot of ways. Just take the officers. They learned how to soldier by gettin' out and soldierin'. Nowadays, they send 'em to school to learn 'em how to ride a horse, and learn 'em what causes glanders.

In them days when a new shavetail joined the outfit fresh out of West Point, they give him to some hard-boiled old captain, who'd train him just like we're tryin' to train you recruits. Well, we had a captain who'd been trained that way an' he'd broke in four or five new lieutenants himself. He was an old-timer—been soldierin' ever since the Indian Wars. None o' these here book soldiers, he wasn't. He only had one book. Why, I seen him go up to a lieutenant one day, and he says, "Young man, what is this?"

And the lieutenant looks at what he has in his hand, and he says, "The Cavalry Drill Regulations, sir."

And then the captain says, "Young man," he says, "That's the cavalryman's Bible. When you know everything there is in that book, you'll know everything you need to know out of books, and you'll know a damn sight more than you know now."

Toca, throw that log on the fire. Gimme another match, Kurzinski.

Well, the Old Man had been soldierin' for pretty close to forty years, and he'd learned everything he knew by experience. And he knew pretty near everything about field soldier'n' there is to know. He'd go down the picket line at stables and he could spot a sick horse further'n any stable sergeant in the army. And he'd get out on the range and take a strange rifle away from some johnrecruit and knock out a string of fives that'd made your eyes pop out. And he c'd snake an outfit across country faster'n any other officer I ever seen, and without a sore back or a case of lameness in the whole troop. And hard-boiled! Why, I heard him cuss for twenty minutes one day, and he never used the same word twice.

That's all right, Smith. If the troop commander wants to cuss, why, that's his privilege.

Well, the Old Man hated book-soldiers. He hadn't no use for these here officers what got their trainin' out of one of the service schools. Well, bye and bye, we got a new lieutenant—a first lieutenant. He came to us from Riley or Leavenworth, or one of those places, and he'd seen maneuvers in England, and he'd read a lot of books about wars, and he thought he was pretty hot.

Well, the new lieutenant got in bad with the Old Man the very first day he rode out to drill. He looks the troop over and he says, "Captain," he says, "You don't teach the men to ride with the Mounted Service School seat."

The Old Man turns purple all over, and he says, "Young man, I was chasin' Indians when you was still buttonin' your clothes with a safety pin. And to chase Indians I had to teach soldiers to ride, and I taught 'em to ride the same way you see these here soldiers ridin'.

I was dog-robbin' for the Old Man then, and I heard all this myself. The lieutenant rode away and the Old Man looked at 'im, and he seen how his stirrups was short and his legs was way back, and he turns to me and he says, "Bennett," he says, "I've been in this man's army for pretty near forty years, and I never knew before what a monkey ridin' a football looks like.

Gimme a match, Kurzinski. Huh? Gimme one, Stein. Damn recruits don't even carry matches, any more. There was a time when soldiers was men, but they're just a lot of babies in knee breeches, now.

Well, the Old Man and the new lieutenant went round and round for about six months. The lieutenant'd tell the Old Man what he read in some book, or heard in some lecture, and the Old Man 'd git madder 'n hell, and he'd swear up and down that there ain't

but one way to learn how to soldier, and that's by gittin' out and soldierin'.

'Bout six months after the lieutenant joined up, we was moved to one of those little outposts, down in Texas, where we was the only troop. And we hadn't much more'n got the horses unsaddled when an inspector general comes blowin' in and tells the Old Man that he's goin' to conduct a tactical inspection. So we packs our wagon and our saddles and goes into the field to be inspected. Of course, the three officers et together, and all the time they was eatin', the Old Man and the lieutenant argues about wars and cavalry. You see, the lieutenant says that a cavalryman should stick to his horse and charge, and the Old Man says that anybody but a plain damn fool'll dismount and begin to shoot. And the inspector just sits there and listens, and don't say nothin'.

Well, the next morning, we hadn't much more than started out when the inspector says, "Captain, I was very much interested in the discussion between you and your lieutenant yesterday evening. This morning I will give each of you a chance to demonstrate his theories. That hill to the southward is held by a force of the enemy, strength unknown. They have just fired upon your platoon, lieutenant. You are without immediate support and are in hostile country. Show me what you are going to do."

Well, the lieutenant turns around in his stirrups and he yells, "Follow me." And then he draws his saber and signals "Line," and takes up a good fast gallop toward the hill.

When the dust clears away so we can see what's happening, they was half way to the hill, and the Old Man eased himself out of the saddle and began to cuss.

Well, the Old Man told me that morning to look after the inspector, so I stays up on my horse.

And the Old Man, he says, "Well, I never thought to live to see the day when a lieutenant of mine, with a platoon of mine would ever make such a damn fool spectacle of himself and his troop as that, and in front of an inspector, too.

The inspector just smiles a little bit, and then he said, "Well, Captain, let me see how *you* will handle that attack."

The Old Man turns around and ordered, "Fight on foot, action right, led horses here." And with that, the Old Man and the rest of the troop advances dismounted toward the hill.

Pretty soon the inspector, he said to me, "Orderly, have the bugler sound recall."

But you see, the only windjammer we got then was dogrobbin'

for the lieutenant, and of course, a windjammer's got no brains, and he rode off with the lieutenant, instead of stayin' with the troop commander, where he belonged.

What happened then? Well, with nobody to sound recall, neither the Old Man nor the lieutenant knew when to stop, 'cause the lieutenant hadn't never read in no book what to do, and all the Old Man's experience learned him not to stop 'til he was ordered to. So they both kept on goin'. Somebody seen the lieutenant's platoon swimmin' past Cape Horn headed toward the South Pole, and the dismounted outfit kept on goin' 'til they wore through their shoes, and then their feet wore off, and the last that was seen of them was a line of campaign hats floatin' across the Panama Canal.

Smith, you report to the mess sergeant right after breakfast, and I'm goin' to tell him to give you the dirtiest job he's got and keep you on K. P. for the rest of the week.



SPORTS

Cavalry School Graduation Events

FOLLOWING a successful Horse Show and Race Meet, held May 29-31, the Cavalry School Graduation events centered the attention of the post and horse lovers of the surrounding country. Favored with delightful weather, the graduation period furnished a thoroughly pleasant and interesting climax to the year's activities at the school.

Following is the list of those placing in the various events:

Event I. THE NONCOMMISSIONED OFFICERS' CLASS NIGHT RIDE:

- 1st-Corporal S. O. Thorpe, Tr. E, 13th Cav.
- 2nd-Sergeant C. I. Thompson, Tr. A, 2nd Cav.
- 3rd-Sergeant J. R. Williamson, Tr. B, 2nd Cav.
- 4th-Corporal H. M. Younger, Tr. E, 13th Cav.

Event II. NONCOMMISSIONED OFFICERS' STANDARD STAKES:

- 1st-Corporal H. M. Younger, Tr. E, 13th Cav.
- 2nd-Sergeant W. F. Couch, Tr. E, 13th Cav.
- 3rd-Sergeant A. L. Parr, Tr. F, 2nd Cav.
- 4th-Sergeant H. J. Swift, M. G. Tr., 2nd Cav.

Event III. TROOP OFFICERS' CLASS OUTDOOR JUMPING:

- 1st-2d Lt. R. L. Howze, Jr., Cav.
- 2nd-2d Lt. R. M. Shaw, Cav.
- 3rd-1st Lt. W. J. Bradley, Cav.
- 4th-1st Lt. L. C. Vance, Cav.

Event IV. NONCOMMISSIONED OFFICERS' CLASS OUTDOOR JUMPING:

- 1st-Sergeant J. R. Lerdrup, M. G. Tr., 2d Cav.
- 2nd-Corporal John Colley, Tr. A, 2d Cav.
- 3rd-Sergeant J. R. Williamson, Tr. B, 2d Cav.
- 4th-Corporal Raymond Curtis, Tr. C, 9th Cav.

Event V. NATIONAL GUARD AND RESERVE TROOP OFFICERS' CLASS JUMPING:

- 1st-2d Lt. C. C. Harman, Jr., Cav-Res.
- 2nd-1st Lt. H. I. Abbey, Tr. F, 114th Cav. Kans. N. G.
- 3rd-1st Lt. J. M. Gilbough, Hq. 112th Cav., Tex. N. G.
- 4th-1st Lt. R. E. Simms, Cav-Res.

Event VI. ADVANCED EQUITATION CLASS, GREEN JUMPERS:

- 1st- Major Calvin De Witt, Jr., Cav.
- 2nd-Captain J. T. Cole, Cav.
- 3rd-Captain C. Burgess, Cav.
- 4th-1st Lt. J. M. Callicutt, F. A.

Event VII. ADVANCED CLASS JUMPING:

- 1st-Captain H. E. Eastwood, Cav.
- 2nd-Captain H. A. Buckley, Cav.
- 3rd-1st Lt. J. P. Rodriguez, Cav (Cuban Army)
- 4th-Captain I. A. Correll, Cav.

Event VIII. HUNT TEAMS:

(First Place) 2d Plat. T. O. Class

- 1st-2d Lt. R. M. Barton, Cav.

2nd-1st Lt. L. K. Ladue, Cav.
3rd-2d Lt. W. H. Wood, Cav.

(Second Place) Adv. Equit. Class

1st-Captain J. T. Cole, Cav.
2nd-1st Lt. E. F. Thomson, Cav.
3rd-1st Lt. S. P. Walker, Jr., Cav.

(Third Place) 1st Plat., T. O. Class

1st-1st Lt. C. W. A. Raguse, Cav.
2nd-Captain C. A. G. DeGeer, Royal Horse Guards (Swedish Army)
3rd-1st Lt. J. H. Stadler, Jr., Cav.

(Fourth Place) Advanced Class

1st-Major T. F. Limbocker, Cav.
2nd-Captain R. Russell, Cav.
3rd-Captain L. A. Pulling, Cav.

**Event IX. ADVANCED CLASS REMOUNT COMPETITION:
SCHOOLING PHASE.**

1st-Capt. H. A. Buckley, Cav.
2nd-Capt. G. A. King, Cav..
3rd-Capt. H. H. Neilson, Cav.
4th-1st Lt. J. P. Rodriguez, Cav (Cuban Army)

INDOOR JUMPING PHASE.

1st-Capt. H. A. Buckley, Cav.
2nd-Capt. R. Russell, Cav.
3rd-Capt. W. B. Van Auken, Cav.
4th-Capt. D. A. Young, Cav.

CROSS COUNTRY PHASE.

1st-1st Lt. J. P. Rodriguez, Cav-Cuban Army
2nd-Capt. L. A. Pulling, Cav.
3rd-Capt. H. A. Buckley, Cav.
4th-Capt. G. A. King, Cav.

EVENT COMPLETE.

1st-Capt. H. A. Buckley, Cav.
2nd-Capt. G. A. King, Cav.
3rd-Capt. H. H. Neilson, Cav.
4th-Capt. W. B. Van Auken, Cav.

Event X. NONCOMMISSIONED OFFICERS' CLASS, REMOUNT COMPETITION:

SCHOOLING PHASE.

1st-Sgt. F. S. Brown, Tr. A, 12th Cav.
2nd-Mr. Sgt. H. A. Dietsche, M. D. (V. C.)
3rd-Corporal H. B. Wiley, Tr. E, 2d Cav.
4th-Corporal B. Galstead, Tr. A, 13th Cav.

INDOOR JUMPING PHASE.

1st-Corporal Shirley Creasy, M. G. Tr. 13th Cav.
2nd-Corporal W. A. Parker, Hq & Ser Tr, 9th Cav.
3rd-Sgt. C. I. Thompson, Tr. A, 2d Cav.
4th-Corporal W. D. Browne, Tr. A, 3rd Cav.

CROSS COUNTRY PHASE.

1st-Sgt. John Goeble, Tr. A, 13th Cav.
2nd-Corporal S. O. Thorpe, Tr. E, 13th Cav.
3rd-Sgt. Floyd Barrett, M. G. Tr., 11th Cav.
4th-Corporal R. O. Long, M. G. Tr., 8th Cav.

EVENT COMPLETE.

1st-Sgt. F. S. Brown, Tr. A, 12th Cav.
2nd-Corporal S. O. Thorpe, Tr. E, 13th Cav.
3rd-1st Sgt. Floyd Barrett, M. G. Tr., 11th Cav.
4th-Corporal R. O. Long, M. G. Tr., 8th Cav.

**Event XI. TROOP OFFICERS' CLASS. REMOUNT COMPETITION:
SCHOOLING PHASE.**

1st-Capt. B. B. Vail, Cav.
2nd-1st Lt. J. H. Stadler, Cav.
3rd-2nd Lt. R. L. Howze, Cav.
4th-1st Lt. F. G. Trew, Cav.

INDOOR JUMPING PHASE.

1st-1st Lt. J. H. Stadler, Cav.
2nd-1st Lt. R. O. Dewey, Cav.
3rd-Capt. E. H. de Saussure, Cav.
4th-2d Lt. R. L. Howze, Cav.

CROSS COUNTRY PHASE.

1st-Capt. B. C. Bridges, V. C.
2nd-2d Lt. R. M. Barton, Cav.
3rd-1st Lt. J. H. Stadler, Cav.
4th-2d Lt. Wm. H. Nutter, Cav.

USE OF ARMS PHASE.

1st-1st Lt. J. H. Claybrook, Jr., Cav.
2nd-1st Lt. C. B. Hutchinson, Cav.
3rd-1st Lt. C. W. A. Raguse, Cav.
4th-1st Lt. C. L. Ruffner, Cav.

EVENT COMPLETE.

1st-Capt. B. B. Vail, Cav.
2nd-2d Lt. R. L. Howze, Cav.
3rd-1st Lt. J. H. Stadler, Cav.
4th-Capt. B. C. Bridges, V. C.

**Event XII. ADVANCED EQUITATION CLASS OLYMPIC PROSPECT
COMPETITION.****SCHOOLING PHASE.**

1st-Capt. J. T. Cole, Cav.
2nd-1st Lt. E. F. Thomson, Cav.
3rd-Capt. M. E. Jones, Cav.
4th-1st Lt. G. B. Rogers, Cav.

ENDURANCE PHASE.

1st-1st Lt. C. W. Bennett, Cav.
2nd-Capt. M. E. Jones, Cav.
3rd-Capt. Carleton Burgess, Cav.
4th-1st Lt. R. L. Taylor, F. A.

JUMPING PHASE.

1st-1st Lt. E. F. Thomson, Cav.
2nd-Capt. M. E. Jones, Cav.
3rd-1st Lt. J. M. Callicutt, F. A.
4th-Capt. A. B. MacNabb, Cav.

EVENT COMPLETE.

1st-1st Lt. E. F. Thomson, Cav.
2nd-Capt. M. E. Jones, Cav.
3rd-Capt. J. T. Cole, Cav.
4th-Capt. A. B. MacNabb, Cav.

**Event XIII. ADVANCED EQUIT. CLASS GREEN SCHOOLED HORSE
COMPETITION:**

1st-Captain J. T. Cole, Cav.
2nd-1st Lt. G. B. Rogers, Cav.
3rd-Captain M. E. Jones, Cav.
4th-1st Lt. S. P. Walker, Jr., Cav.

Event XIV. SWORDSMANSHIP COMPETITION:

1st-1st Lieut. F. G. Trew, Cav.
2nd-2d Lieut. W. H. Nutter, Cav.
3rd-1st Lieut. J. H. Stadler, Cav.
4th-1st Lieut. L. K. Ladue, Cav.

Event XV. COMBINED PISTOL AND SABER COMPETITION, TROOP OFFICERS' CLASS AND NATIONAL GUARD AND RESERVE TROOP OFFICERS' CLASS:

- 1st-Captain A. J. Yanausch, 113 Cav., Iowa, N. G.
- 2nd-1st Lieut. W. W. Yale, Cav.
- 3rd-2d Lieut. A. A. Cavanaugh, Cav.
- 4th-1st Lieut. W. H. Wood, Cav.

Event XVI. COMBINED PISTOL AND SABER COMPETITION, NONCOMMISSIONED OFFICERS' CLASS:

- 1st-Sgt. J. R. Lerdrup, M. G. Troop, 2d Cav.
- 2nd-Corp. Arthur Moss, M. G. Troop, 10th Cav.
- 3rd-Corp. S. O. Thorpe, Tr. E, 13th Cav.
- 4th-Corp. H. M. Younger, Tr. E, 13th Cav.

Event XVII. NATIONAL GUARD AND RESERVE ADVANCED AND TROOP OFFICERS' CLASSES POINT TO POINT RIDE: TROOP OFFICERS' CLASS

- 1st-Capt. R. L. Hatt, Tr. B, 115th Cav., Wyo. N. G.
- 2nd-1st Lieut. F. D. Huyler, Cav-Res (61st Cav. Div.)
- 3rd-1st Lieut. H. D. Simmons, Cav-Res (312 Cav.)
- 4th-2d Lieut. E. F. Griggs, 110 Cav., Mass. N. G.

ADVANCED CLASS.

- 1st-Capt. Albert Hlavac, Cav-Res.

Event XVIII. TROOP OFFICERS' CLASS JUMPING. INDOOR:

- 1st-2nd Lieut. M. A. Giddens, Cav.
- 2nd-1st Lieut. C. L. Ruffner, Cav.
- 3rd-1st Lieut. L. K. Ladue, Cav.
- 4th-1st Lieut. F. G. Trew, Cav.

Event XIX. NATIONAL GUARD AND RESERVE TROOP OFFICERS' CLASS, JUMPING INDOOR:

- 1st-Capt. Walter Livingston, Tr. E, 113th Cav. Iowa N. G.
- 2nd-1st Lieut. F. D. Huyler, Cav-Res (61st Cav. Div.)
- 3rd-1st Lieut. H. M. Hopp, Cav-Res (318th Cav.)
- 4th-Capt. A. W. Morse, Cav-Res.

Event XX. NONCOMMISSIONED OFFICERS' CLASS JUMPING.

INDOOR:

- 1st-Sgt. C. I. Thompson, Tr. A, 2d Cav.
- 2nd-Corp. S. O. Thorpe, Tr. E, 13th Cav.
- 3rd-Corp. H. B. Wiley, Tr. E, 2d Cav.
- 4th-Corp. H. M. Younger, Tr. E, 13th Cav.

Event XXI. ADVANCED EQUITATION CLASS GREEN POLO PONY COMPETITION:

SCHOOLING PHASE

- 1st-Captain J. T. Cole, Cav.
- 2nd-1st Lieut. E. L. Harrison, Cav.
- 3rd-Captain M. E. Jones, Cav.
- 4th-1st Lieut. G. B. Rogers, Cav.

JUMPING PHASE:

- 1st-1st Lieut. S. P. Walker, Cav. }
- 1st Lieut. R. L. Taylor, F. A. } (TIED)
- 1st Lieut. E. F. Thomson, Cav. }
- 2nd-1st Lieut. E. L. Harrison, Cav. } (TIED)
- 1st Lieut. J. M. Callicutt, F. A. }
- 3rd-Captain C. Burgess, Cavalry } (TIED)
- Captain M. E. Jones, Cavalry }
- 4th-Major C. DeWitt, Cavalry

SHOWING PHASE:

- 1st-Captain J. T. Cole, Cavalry
- 2nd-1st Lieut. G. B. Rogers, Cavalry
- 3rd-1st Lieut. E. L. Harrison, Cav.
- 4th-Captain M. E. Jones, Cav.

EVENT COMPLETE:

1st-Captain J. T. Cole, Cavalry
 2nd-1st Lieut. E. L. Harrison, Cav.
 3rd-1st Lieut. G. B. Rogers, Cav.
 4th-Captain M. E. Jones, Cavalry

Event XXII. THE NORWICH STAKES. (Old Standard Stakes)

1st-Captain E. A. Williams, Cav.
 2nd-Captain V. M. Cannon, Cav.
 3rd-1st Lieut. P. C. Hains, III, Cav.
 4th-1st Lieut. R. H. Bridgman, Cav.

Event XXIII. HORSESHOEING JUDGING COMPETITION.

1st-1st Lieut. H. J. Theis, Cav.
 2nd-1st Lieut. C. W. A. Raguse, Cav.
 3rd-1st Lieut. L. K. Ladue, Cav.
 4th-1st Lieut. Clyde Massey, Cav.

Event XXIV. THE NIGHT RIDE.

1st-Major Renn Lawrence, Cav.
 2nd-1st Lieut. J. H. Claybrook, Cav.
 3rd-1st Lieut. P. C. Hains, III, Cav.
 4th-1st Lieut. C. B. Hutchinson, Cav.

HIGH MAN, National Guard and Reserve Officers—

Capt. Walter Livingston, Tr. E, 113 Cav. Iowa, N.G.

Event XXV. TROOP OFFICERS' ALL AROUND EQUESTRIAN CHAMPIONSHIP.

1st-1st Lieut. P. C. Hains, III, Cav.
 2nd-2d Lieut. R. L. Howze, Cav.
 3rd-1st Lieut. C. B. Hutchinson, Cav.
 4th-2d Lieut. W. O. Heacock, Cav.

Event XXVI. THE CAVALRYMAN'S CUP.

1st Lieut. P. C. Hains, III, Cav.

Event XXVII. THE LORILLARD CUP.

1st-Captain J. T. Cole, Cavalry
 2nd-Captain M. E. Jones, Cavalry
 3rd-1st Lieut. E. F. Thomson, Cavalry
 4th-1st Lieut. C. W. Bennett, Cavalry

Event XXVIII. THE UNITED STATES CAVALRY ASSOCIATION TROPHY.

Corporal Harrold M. Younger, Tr. E, 13th Cavalry



TOPICS OF THE DAY

Death of Lieut. Col. James J. O'Hara

WAR DEPARTMENT
OFFICE OF CHIEF OF CAVALRY
WASHINGTON, D. C.

June 4, 1930

Order No. 1

It is with deep regret that the Chief of Cavalry announces the death on Friday, May 30th of Lieut. Colonel James J. O'Hara, Cavalry, Personnel Officer, this office.

Entering the Military Academy in August 1900, he was commissioned a 2d Lieutenant of Cavalry in June 1904, and passed successively through all the grades, reaching his promotion to Lieut. Colonel, Cavalry, on August 28, 1928. From the first, his career showed that unremitting devotion to duty and that large mindedness which won him in so marked a degree the love and admiration of those associated with him.

As a junior officer Lieut. Colonel O'Hara served with the 4th and 1st Cavalry regiments until 1911, when he was detailed as an instructor in the Department of English and History at the U. S. Military Academy, where he remained until 1915. As a Captain and later as a Major, he served with the 15th Cavalry in 1916 and 1917. During the World war he served in this country and abroad as a Squadron Commander, and Regimental Commander 15th Cavalry. In the American Expeditionary Forces in France he served as Remount Officer, Base Section No. 2, and in the Office of the Assistant Chief of Staff, G-1, G. H. Q. A. E. F. On August 31, 1918, he was promoted to Lieut. Colonel, and held this temporary rank until he was honorably discharged therefrom on August 28, 1919.

After the armistice he was successively Chief of Staff, Western Department, Captain of the Cavalry Rifle Team in 1920, Assistant Professor in the Department of English, History, and Economics at the U. S. M. A., until 1923. He graduated from the Advanced Course, Cavalry School, in 1924, and was a Distinguished Graduate of the Command and General Staff School, Class of 1925. His name was

borne on the General Staff Corp Eligible List. From 1925 to June 1928, Colonel O'Hara served as a member and recorder of the Cavalry Board, Fort Riley, Kansas. From July 1928 to the date of his death he was on duty in the Office of the Chief of Cavalry as Chief of the Material and Equipment Section and later as Chief of the Personnel Section.

A thorough student of his profession, with a mind lucid and keen, friendly and tolerant towards all, with a moral fortitude which conquered his none too vigorous physique, he did himself and his chosen arm significant honor.

The heartfelt sympathy of the whole Cavalry Arm is extended to his bereaved family.

GUY V. HENRY,

Major General,

Chief of Cavalry

Commendation of the 112th Cavalry

OF several recent cases of civil disorder requiring the intervention of the National Guard, the outbreak of mob violence at Sherman, Texas, was one of the most serious. Units of the 112th Cavalry of Dallas were called upon to aid the civil powers of the city of Sherman in restoring order. How well these Guardsmen performed their duty, one of the most trying and unpleasant which a soldier can be called upon to perform, is shown by the following letter addressed to the officers and men of the 112th Cavalry by the Military Affairs Committee of the Dallas Chamber of Commerce:

"I am directed by Mr. Charles W. Davis, chairman of the Military Affairs committee of Dallas Chamber of Commerce, to convey to you an expression of appreciation for your splendid service in aid of the civil powers at the city of Sherman. Mr. Davis speaks for his colleagues on the committee and to this extent expresses the sentiments of Dallas Chamber of Commerce.

"It is realized that in the initial stages of military intervention at Sherman the small group of Dallas National Guardsmen on the scene conducted themselves with a measure of forbearance rare in the annals of the Guard service. Understanding that the use of their weapons would have caused many casualties among women, children and others not actually engaged in rioting, the troopers withheld fire under provocation that would have taxed the patience of veteran

soldiers, thus establishing a standard of discipline reflecting the greatest credit on officers and men engaged.

"Contemplation of the possibilities attending the use of weapons at this stage of the riot makes the altitude and steadiness of the Guardsmen stand out conspicuously. Insofar as warm appreciation of your fine discipline under tremendous provocation can repay you for the injuries and indignities suffered, you have this in full measure.

"Mr. Davis desires you to understand that your fellow citizens of Dallas recognize this additional contribution to the maintenance of peace and order in Texas and are proud of the young man from this city who wear the uniforms of our Country's auxiliary forces.

Yours faithfully,

ROLAND A. LAIRD, *Secretary, Military Affairs Committee.*"

Cavalry Rifle Platoon Competition

THE Chief of Cavalry has announced a platoon competition for all regular regiments and separate squadrons not having an opportunity to have entries in the 1930 Leadership Test for Small Cavalry Units, to take place during the fiscal year 1930-31. The competition will be based on the actual records made by competing platoons in pistol marksmanship, swordsmanship and rifle marksmanship in the regular record courses during that period. According to the regulations for the competition, one entry will be made by each eligible regiments and squadron, and all personnel of the competing platoons must have been regularly assigned to the troop to which the platoon belongs on June 15, 1930. A minimum of twenty members of the entered platoon must in each case participate in each phase of the contest.

An award of \$250.00 will be made to the winning platoon to be divided among the members. The funds for this award will be furnished from the excess accrued in the Trust Fund for the annual Leadership Test for Small Cavalry Units over and above the amount necessary to provide the annual prize of \$1,000.00 for that event.

The Cavalry Rifle Team

THE squad for the Cavalry Rifle Team tryouts assembled at Camp Perry on May 15, 1930, and were quartered in the Erie Ordnance Depot.

In selecting Camp Perry as the scene of the tryouts, it was hoped to secure the advantage of gaining a thorough knowledge of all the

various weather conditions which might prevail at the place where the matches are actually held.

The first week was devoted to putting the squad through a thorough small arms school. During the second week a complete course was fired with the small bore, ending with a two-days' competition.

Firing with the calibre .30 rifle began June 2d, with the following program in effect:

June 2-19. Rifle practice. One record score to be fired each week.

June 20. Rifle record, Course "A."

June 23-28. Rifle record. First elimination. Five times over the National Match Course. Squad to be cut to 30 men upon completion of these scores.

Special Matches

The following special matches to be fired in conjunction with first elimination. Trophies and medals as follows:

Cavalry Regimental Team Championship Match: Fired June 24, 1930. Course: National Rifle Match Course. Open to one team of two competitors from each cavalry regiment or organization. The team making the highest score will be awarded the Cavalry Regimental Team Championship Trophy, with a bronze medal for each member.

Cavalry Individual Championship Match: Fired June 27, 1930. Course: National Rifle Match Course. Open to any member of the United States Cavalry. The individual making the highest score will be awarded the Cavalry Individual Championship Trophy and a gold medal; 2d place, a silver medal; 3d place, a bronze medal.

200-Yard Individual Championship Match: Fired June 26, 1930. Course: 20 shots at 200 yards offhand with the service rifle. Open to any member of the United States Cavalry. The individual making the highest score will be awarded a silver medal; 2d place, a bronze medal.

1,000-Yard Individual Championship Match: Fired June 25, 1930. Course: 20 shots at 1,000 yards with the service rifle, no sighting shots. Open to any member of the United States Cavalry. The individual making the highest score will be awarded the Fort Bliss Trophy and a silver medal; 2d place, a bronze medal.

Individual Rapid Fire Match: Fired June 23, 1930. Course: Rapid fire phase of the National Rifle Match. Open to any member of the United States Cavalry. The individual making the highest score will be awarded a silver medal; 2d place, a bronze medal.

The Holbrook Trophy Match: Fired June 23-28, 1930. Course: Total record scores of the first rifle elimination. Open to all com-

petitors for the Cavalry Rifle Team. To the individual making the highest total score will be awarded the Holbrook Trophy and a gold medal; 2d place, a silver medal; 3d place, a bronze medal.

Cavalry Individual Pistol Match: Fired June 9-14, 1930. Course: Total record scores of the first pistol elimination. Open to all competitors for the Cavalry Pistol Team. To the individual making the highest score will be awarded a gold medal; 2d place, a silver medal; 3d place, a bronze medal.

The Cavalry Regimental Team Championship Trophy will be retained by the winning regiment and the other trophies by the regiment or organization to which the winner belongs for one year, or until the next competition.

All medals awarded are furnished by the United States Cavalry Association and will become the permanent property of the individual.

June 30-July 24. Individual instruction and practice. Record scores to be fired twice each week.

July 25-31. Record firing. Second elimination. Five times over the National Match Course. Squad to be cut to twenty men upon completion of scores.

August 1-23. Team practice and instruction. Record scores to be fired twice each week.

August 25-30. Final elimination. Squad to be cut to twelve men.

September 1-14. Participation in National Matches.

Work with the pistol was scheduled to run simultaneously with the rifle, the first elimination to take place during the week June 9-14. All competitors were to be required to fire through the first elimination consisting of firing five times over the National Match Course the squad to be cut to ten men upon completion of the scores.

Through the generous financial support of the Cavalry School and the various units which compose the Cavalry service, coupled with the energy and ingenuity of the Team Captain and various members of the squad, it will be possible this year to acquire considerable property for the use of this and future Cavalry teams. The chief items will be a new and modern Fecker Team telescope, a pair of telescopes for pressure barrel rifles and telescope stands of a convenient and uniform design for the entire squad.

The following were selected to guide the 1930 squad:

Team Captain: George A. Rehm, 1st Lieutenant, 3d Cavalry. *Team Coach:* Clyde A. Burcham, 1st Lieutenant, 7th Cavalry. *Team Supply Officer:* R. H. Bridgman, 2d Lieutenant, 12th Cavalry. *Publicity Officer:* Sidney C. Page, 1st Lieutenant, 14th Cavalry.

PROGRESS AND DISCUSSION

This section of the JOURNAL has been instituted for the purpose of recording the state of development of various items of material in which the Cavalry is particularly interested, progress in technique or tactics and also to encourage discussion of matters of general professional interest to cavalry officers. Suggestions concerning new methods developed and discussions or constructive criticisms of present methods, equipment, etc., are invited. It is believed that there are many practical ideas and improvements which officers are using in their organizations which may be of benefit to others in solving similar problems. If you have an idea or suggestion along the lines indicated, send it in. It will be welcomed.

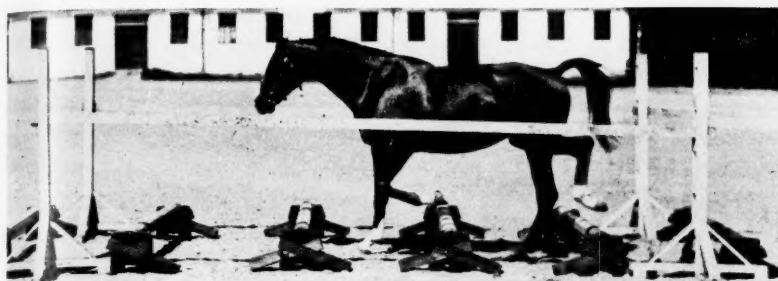
Use of the Cavaletti

IN an article in the April, 1930 JOURNAL, on the Swedish Cavalry School, an illustration (reproduced herewith) was given of the use of the *cavaletti* for schooling horses. The purpose of this device in training was not explained in the article. The following interesting communication was received from Lieutenant Colonel H. R. Smalley, now on duty with the Quartermaster Corps, who has long been interested in high schooling:

"I was quite interested to note the illustration, on page 194 of the April CAVALRY JOURNAL, of the *cavaletti*, called in the title an Italian method of training. No explanation was given in the text. Perhaps your readers would like one.

"Years ago, when I was working a young horse at the school walk, an elderly civilian who had been looking on engaged me in conversation and asked how I secured the movement initially. He had been a trainer of circus horses and described to me how he secured the school walk by the assistance of the *cavaletti* illustrated in the JOURNAL. I should hardly call the use of this apparatus a 'method' of training, but a 'device' to assist the rider in securing the school walk.

"This brings up the subject of gaiting which is not considered of much importance in our service, and on which our training regulations are silent. (Timing is not gaiting.) With the limited attention paid to this subject there seems to be a hazy idea that one should



The Cavaletti

walk a horse to teach the walk, trot him to teach the trot, and gallop him to teach the gallop. This is 33 1/3 per cent correct. As Baucher, who learned horsemanship in Italy, wrote: 'The walk is the mother of the gaits.' When a high school rider like Baucher said 'walk' he meant the school walk of two beats.

"A horse is high schooled by the same means that he is gaited, that is, by supplying what he lacks, a muscular activity of the forehand that matches that of his hind quarter. Mounted or dismounted a horse's fore legs bear the greater part of his weight and at the walk do the most work and gain the most muscle. Once he leaves the walk for the trot or gallop the more active hind legs can do the most work leaving the less active fore legs to act as passive weight bearers. This always happens without man's intervention. High school riders by the walk, school walk, backing, pirouettes, etc., where the shoulders do the work initiate forehand activity and then exploit same at the trot, canter, passage, piaffer, etc.

"This forehand activity is evidenced by quickened breaking over of fore feet. If, at the walk, we quicken the action of the front feet we secure a walk of two beats as shown in the illustration of the *cavaletti*. Quickened action of front feet means more muscular effort and resultant muscular development. Muscles well developed are easy to excite to action.

"The high school has long used the mysterious term called the *rassembler*, usually defined with reference to the rider's prowess and misinterpreted even by those who could produce it at will.

"The *rassembler* is nothing more than a harmonious muscular activity of the fore and hind quarters. The limiting factor being always in front, the forehand receives the early attention of the high school trainer. The hind quarters will always tend to an equal or greater activity and this extra activity excites the attention of the onlooker and thus conceals the secret of higher training.

"I suggest that the young horseman who would train a mount for the 1932 dressage contest do a great deal of walking, devote his entire attention at first to forehand development, and, by means of the *cavaletti* easily improvised, learn how to secure the school walk which DeBussigny refers to in his book as the most difficult feat in horsemanship.

"The picture shows the horse at liberty. I should recommend that he be ridden very, very slowly. The added weight of rider will assist in muscular development, and after a few efforts the rider may discover how to maintain the two beat walk as he leaves the *cavaletti*, in which case he has crossed the 'pons asinorum' that divides ordinary riding from the high school and the latter becomes an open book, as Baucher wrote: 'The poetry of equitation.'"

Cavalry Center for Reserve Unit

OFFICERS on duty with Reserve units are usually faced with the old army problem of making something out of nothing. To make a live, active organization out of a paper unit requires something more than periodic conferences. The summer training camps help to put life into the organization, but practical preparation for the camps is difficult to arrange. How the problem has been handled in one place is described by Colonel W. F. H. Godson, Cavalry, stationed at Detroit with the 160th Cavalry Brigade. It will be remembered that Colonel Godson worked out the same idea in establishing the original Cavalry Center on Long Island which later became the Army Polo Center, while on duty with the 61st Cavalry Division.

Colonel Godson in answer to an inquiry from the Journal, describes the development of their plant for real Cavalry training as well as for enjoyment of social activities as follows:

"I think the plan we are adopting here is the only one which can inject life and actuality into our paper Cavalry units. When I got here and picked up the pieces I was sick to see what a pitiful show it was and I started in to sell my old 61st plans to these lads here. Our 'activities' consisted in classes one evening a week in the offices of the 85th Division where we have a desk and a staff sergeant. Strange to say a chosen few turned up for the group schools, I cannot understand why, but they actually did.

"I went to work on the officers and got them enthused with my idea. It was not hard, for they had already realized the need, so my part was easy. Now we are working along the lines of my Long Island plan.

"This is the progress up to date. We found just out of town an old farm, 100 acres, and an old nine-room house with a poor barn. This was empty and running to ruin, part of a prospective real estate development but not liable to be wanted under present conditions for three or four years. Owner likes Cavalry soldiers, had a son killed in France and was willing to rent us the place for a nominal rent \$15 a month and give us a two-year lease. This farm is surrounded by hunt and riding clubs and ideally located. Everybody got busy and gave work or money or furniture, pictures, or what have you. We had several general fatigues, painted, papered, put in electric light fixtures. We now have a comfortable house furnished, iron flag staff with flag flying, office, three good lounging rooms, kitchen and dining room which is a conference room every Saturday. We have a garden in, barn is already sheltering an officer's horse, we have an old darkey man and wife in charge and can get a lunch or dinner any time. Club is open all the time for use of officers and their wives and with the exception of Saturday afternoons which are entirely military from 2:00 till 6:00 p. m. when we have our schools, boards, etc., and an equitation class. There is a riding establishment on the next place half a mile away and the owner gives us a special rate for horses for our officers. I keep my two mounts here as it is very handy. The terrain is ideal for all sorts of minor tactical problems and training. The officers of the Brigade are keen about it and we are having applications for membership from officers of other units around Detroit. The cost for Cavalry officers is five dollars a month with an entrance fee of five dollars. This gives them all the privileges of the club and four Saturday rides in the equitation classes. We have been running now a little over two months and have in the neighborhood of fifty members. They are just eating it up. I think it ought to carry on. I am trying to make them independent of me and run it themselves so that it will not be influenced by changing Unit Instructors."

Leadership Test for National Guard Units

FOLLOWING along the lines of the Leadership Test For Small Units which has been carried on for a number of years in regular organizations, the 104th Cavalry, Pennsylvania National Guard, have instituted a test which will be held during the coming summer camp at Mt. Gretna. The value of such tests has been well demonstrated. The outline of the test as published by Headquarters 104th Cavalry is reproduced for such value as it may be to other organizations contemplating such a test:

Platoon Leadership Test, 104th Cavalry*Section I*

1. **TIME.** It is planned to hold the Platoon Leadership Test, 104th Cavalry at Mt. Gretna, Pa., on July 28, 1930.

2. **OBJECTIVE TEST.** The test is designed primarily to encourage the training of individuals and to test the combat efficiency of the Cavalry platoon.

3. **THE TEST.** The test shall be divided into two phases:

(1) **A. Use of Weapons Phase,** based upon official records of qualification in specified tests held as part of the regular training of the regiment.

(2) **A. Leadership Phase,** based upon a march of a platoon under simulated war time conditions.

4. **ELIGIBILITY.** (a) Only one rifle platoon, war strength, accompanied by its machine rifle squad for each troop of the 104th Cavalry.

(b) The platoon selected to represent a troop may be composed of any regularly assigned mounts and individuals of the troop, irrespective of previous platoon assignment, so long as men are of the appropriate rank and grade as hereinafter provided. Troop commanders shall, upon the day preceding the leadership phase, submit to regimental headquarters a roster of the platoon that is to represent their respective troops. After the submission of this list no substitutions will be permitted.

(c) Headquarters Troop and Machine Gun Troop are eligible for this test, but they shall each be represented by a Cavalry rifle platoon constituted as hereinafter provided. Machine rifles and packs will be provided these two organizations by regimental headquarters. The tactical employment of machine rifles will not constitute an important part of the test.

(d) Platoons will consist of platoon headquarters, three (3) rifle squads, and a machine rifle squad; *i. e.*, one (1) lieutenant, two (2) sergeants, four (4) corporals and twenty-seven (27) privates first class and privates. Totals: one (1) officer and thirty-three (33) enlisted men.

5. **WINNER.** The platoon scoring the highest total number of points in both phases shall be the winner.

6. **PRIZE.** A cup, to be known as the Williamson Trophy, to have the designation of the winning platoon inscribed thereon and to remain the property of the winning platoon until the next succeeding test.

*Section II**Use of Weapons Phase*

7. RIFLE. The official record for qualification in rifle marksmanship made during the current training year by each individual of a competing platoon will be accredited to the platoon. Where a member of a competing platoon for any reason whatsoever fails to qualify as rifle marksman or better his score shall be zero. Official records for qualification with the machine gun by representatives of Machine Gun Troop who do not fire the qualification course in rifle marksmanship will be substituted for qualification in rifle marksmanship.

8. PISTOL AND SABER. The official record for qualification made on the combined pistol and saber course by each individual of a competing platoon will be accredited to the platoon. Where a member of a competing platoon for any reason whatsoever fails to run the combined pistol and saber course for record, his score shall be zero. Official record for qualification made in pistol dismounted by representatives of Machine Gun Troop will be substituted for qualification in combined pistol and saber.

9. PLATOON COMBAT PROBLEM. The score made by the platoon in the Platoon Combat Problem on the combat range shall count in this contest. The individuals who compose the platoon in the Leadership Phase must be the same as those who compose the platoon in the Platoon Combat Problem on the combat range, except that where a troop has more than one lieutenant, a different lieutenant shall command the platoon in the combat firing problem from the one commanding the platoon in the leadership test. The score of the Machine Gun Troop on the 1,000-inch range shall be substituted for the combat firing problem.

*Section III**The Leadership Phase*

10. GENERAL. (a) This phase will consist of a march of not to exceed fifteen (15) miles. Competing platoons shall be required to perform over the same terrain and under the same judges.

(b) Platoons will march at one half ($1\frac{1}{2}$) hour intervals, the order of departure being determined by lot. Objectives and missions will be assigned in orders given platoon leaders prior to departure. Platoons will be rated on the following points: adjustment of equipment, preparation of march table, accurate adherence to prescribed rate of march, tactical solution of situations encountered, conditions

of animals on arrival in camp, care of animals by competing platoons during and after march, soundness of animals on morning following the march.

(c) Umpires will be stationed at various control points en route. They will comply with the special instructions given them, assuming control of the situation during their particular phase. Umpires will wear a white band on the hat and arm.

11. HORSES. A maximum of thirty-five (35) horses will be allowed.

12. EQUIPMENT. Full field equipment and one (1) cooked meal will be carried by each man and one (1) feed of grain will be carried for each horse. There will be no transportation with the platoon. Equipment will be checked by an umpire after the march. Shortages will operate as penalties against the platoon.

13. AMMUNITION. No ammunition will be carried. Platoon leaders are responsible for the enforcement of this provision and violations thereof will penalize the platoon.

14. REPRESENTATION OF ENEMY. All troops wearing denims with white arm bands will be considered hostile. White flags will be used to designate enemy vehicles and troops.

15. COMMUNICATIONS. (a) Messages and orders, arriving for platoons, will be given them by umpires.

(b) All communications (reports, messages, etc.,) originating within the platoon during the test, will be shown to the umpire at the control point before sending.

16. CONDUCT OF PLATOONS. (a) From the beginning of the test until its end, each platoon leader will assume the tactical situation to be as described in the orders and situations given him. He and his platoon will be judged by their actions and by any orders given by them during that time, and by the condition of animals at the completion of the test.

(b) In situations requiring investigations of localities, combat, etc., platoons will avoid trespassing on private property, except when authorized by umpires to do so.

(c) For the purpose of obtaining enemy information at points being investigated, platoons will either go as a unit or send a smaller patrol actually to the point in question. Umpires will give the information which would normally be given by the residents of the locality.

(d) Inquiries may be made of civilians as to routes, but other aid will not be solicited or accepted of civilian persons or property. Contestants will be regarded as being on their honor to accept no unauthorized assistance.

(e) Platoon leaders will so conduct their march as to touch at all control points marked on the maps given them. Failure to check in at all control points shall cause elimination.

(f) All concerned are especially cautioned against telling an umpire "I would not do so and so" or, "I would do this or that." The situation will be given. Each platoon leader will have his platoon. Let him act and let the umpire judge this action. Conversation between platoon leaders and umpires in these situations is unnecessary, renders the situation unrealistic and is not desired. Provision will be made to permit those not engaged in the test to observe at certain prescribed points.

Section IV

General Scoring System and Weights of Use of Weapons and Leadership Phases

17. Platoons will be scored on the use of Weapons and Leadership Phases. The maximum score for the entire test will be one hundred (100). Values in terms of percentages will be assigned the various phases of the test as indicated in the following table:

(a) Use of Weapons Phase	30
(1) Rifle	10
(2) Pistol & Saber	10
(3) Platoon Combat Problem	10
(b) Leadership Officers & NCO's Phase	70
Total	100

A Simple Efficient Manger

UNTIL recently at Fort Stotsenburg the horses of the 26th Cavalry and the 24th Field Artillery (both Philippine Scout regiments) were fed hay from the usual wooden type of "sheep" manger, consisting of vertical slats with spaces between them, and grain from the issue metal feed box, either nailed or fitted into a slide in the manger.

Concurrently with other more extensive improvements in the stables, the mangers were remodeled and the feed boxes eliminated entirely. The vertical wooden slats of the mangers were closed in and the spaces done away with, making the mangers solid, except for a vertical sliding panel between each two mangers which could be raised to clean the bottom. Horizontal slats about one and one-half feet apart were nailed across the top of the mangers. Hay and grain

were then fed together in the same manger and resulted in a much more satisfactory method of feeding.

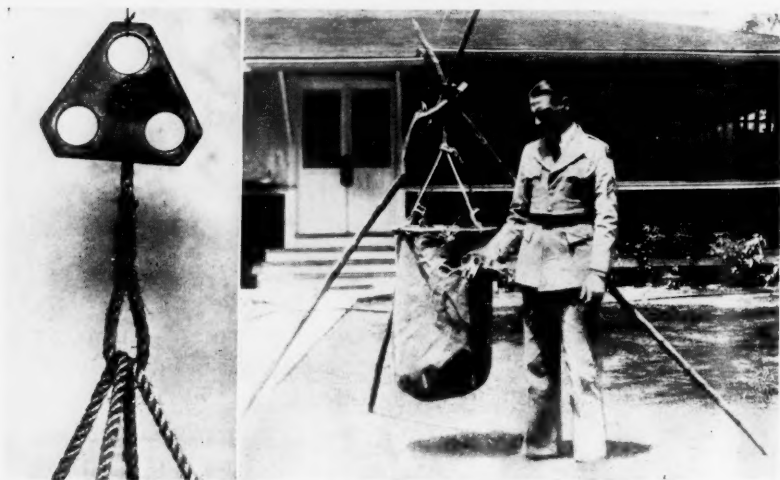
The horse now feeds with his nose close to the ground in his natural grazing position; he cannot bolt his grain which is mixed with the hay; there is no wastage of grain or flowers of hay from the solid bottom of the manger, and the horizontal slats prevent most of the wastage due to tossing hay out of the top of the manger.

There are no feed boxes to clean or for impatient horses to rattle at feeding time. Horses eat more quietly and there is a much simpler installation to keep in repair. A little care in keeping tie-ropes adjusted to the proper length prevents the horses from stealing each other's feed.

Trefoil Hanger for Water Bags

MAJOR M. L. Todd, Medical Corps, has submitted the accompanying photos of a trefoil hanger for the bag, water, sterilized for use in the field. Major Todd writes as follows:

"In 1922, this trefoil hanger for bag, water, sterilizing was approved by the Technical committee, Quartermaster General's Office. It has been issued for use, but no one is using it because it was never



Trefoil Hanger for Water Sterilizing Bag

fastened to the Lyster Bag and I failed to invite attention to it's merit. I am now attempting to rectify my error by writing this same article to the Service journals most likely to be interested, so that this very

practical method of suspending the Lyster bag may be used by troops in the field."

This simple device facilitating the use of the bag was developed by Major Todd.

New Armored Cars

TROOP A, 2d Armored Car Squadron, is now at Camp Holabird awaiting the completion of their armored cars before going to Fort Riley for permanent station. They will be equipped with thirteen experimental vehicles. Two of these are trucks, with a 95-horsepower Franklin engine and a low gear ratio which, together with dual tires in the rear and a high clearance, gives a most remarkable performance. The body on these trucks has approximately ten per cent more floor surface than the old escort wagon which, together with six inches more height below the wagon bows will permit the carrying of enough bulk to give the trucks about the same or a little greater capacity than the escort wagon. Six of the armored cars are being constructed on the same truck chassis. The short wheel base, 106 inches, has proved invaluable in the preliminary cross-country tests which have been made. Two cars will carry one .50 calibre water-cooled gun as main armament together with two Lewis Guns carried inside the car for use on anti-aircraft brackets outside the car when it is stationary. Two other cars are identical except that in place of the .50 calibre gun, a Lewis Gun is carried on the tourelle mount in the turrets which were constructed by the Ordnance Department at Watertown. The remaining two cars of this series are armed with the Browning machine rifle in place of the Lewis Gun. The five little cars are constructed on commercial chassis: three of them on Whippet, one on Chevrolet and one Plymouth chassis. All are equipped with turrets and carry one .30 calibre tank machine gun as armament. The larger armored cars have dual 32x6 tires in rear and two of them carry dual tires in front. The front tires are also 32x6's except that the outside tire is slightly smaller in diameter and does not come into full bearing until the vehicle enters on soft going. The smaller cars have their normal tires except that one Whippet carries hard rubber flanges mounted on an exterior drum to give not only increased bearing surface on soft going but also additional traction. This troop will take station at Fort Riley, where a series of tests will be made by the Cavalry Board, from the result of which, together with the experience gained from the 1st Armored Car Squadron at Fort Bliss, it is hoped that a satisfactory type of car can be evolved for adoption as the armored car of the American Cavalry.

New Table of Basic Allowances

HAVING been approved by the War Department, the Table of Basic Allowances for Cavalry have been issued in mimeographed form to organizations. This table rescinds all War Department Circulars, Tables of Basic Allowances and Table of Equipment heretofore published insofar as they pertain to the allowances of equipment for cavalry troops.

Notes From the Cavalry Board

Test of Thompson Sub-Machine Guns

FOUR Thompson Sub-Machine Guns, Navy Model 1928, have been sent to the Cavalry Board for test to determine if it has a tactical application with the ordinary rifle troop for the use of outposts, patrols, etc., and also the desirability of its adoption as an emergency arm for the close defense of armored cars. This is the old Thompson machine gun with certain modifications and improvements. It has gained considerable favorable comment from the Marines who have used it in Nicaragua and Haiti.

Modification of 37 mm. Guns

The Cavalry Board has completed its report on the 37 mm. gun and mount. By shortening the trail and adding a new traversing device and by separating the barrel from the cradle in packing, it has been possible to transport this gun successfully on two pack horses, together with a limited amount of ammunition. Great credit is due the Board for its work on this project. Advance reports indicate that it has successfully met the preliminary tests. It will now undergo a service test at Fort Riley, at the conclusion of which it is hoped that three definite questions will be answered:

1. Is the Model 1916 37 mm. Gun the one which is desired for adoption by the Cavalry as an anti-tank weapon?
2. Does the mount as altered with its rapid traversing device meet the needs of the Cavalry?
3. Does the test show that the method of packing is satisfactory?

If these questions are answered in the affirmative the Ordnance will undertake the alteration of sufficient mounts to equip the active regiments.

An alternative method of adopting the gun, developed by Captain T. J. Heavey, 2d Cavalry, is also being examined by the board. In this method the length of the trail is decreased by about one half, and the

gun complete is carried on one pack animal, with another animal carrying 96 rounds of ammunition.

Sabre on the Modified Saddle

A method of carrying the sabre on the modified McClellan saddle has been developed and will shortly be published to the service. No special attachments are necessary other than a small "D" ring sewed on the forward edge of the cinch which permits the use of sabre straps. The sabre will be carried on the pommel to balance the weight of the rifle. No special sabre carrier is necessary.

Experimental Horse Boots

The experimental horse boots designed by the Chemical Warfare Service for the protection of the feet and legs of horses in gas-infected areas have been tested and reported unfavorably. To protect the sole of the horse's foot, which appears is one of the vulnerable places, the boot required that the horse be shod with a special pad of gas-resisting material covered with a steel plate. While the boots did not produce any chafing, they did open at the rear in a manner which would permit the entrance of gas.



ORGANIZATION ACTIVITIES

1st Cavalry, Fort D. A. Russel, Texas

DURING the period March 29, 1930, the Brigade Commander, General Hamilton S. Hawkins, conducted his annual tactical inspection of the regiment. On the last day of the tactical inspection the regiment made a short march without wheel transportation and camped overnight. The 2d Pack Train transported all forage used during this march and the troops carried necessary rations on the Phillips Packs.

April 17, Colonel Alberto Pliego of the Mexican army visited the post to extend an invitation to the officers of the 1st Cavalry to attend a Polo Tournament to be held in Mexico City on the 16th of September this year and to discuss with the Commanding Officer arrangements for the visit of a polo team from the Mexican army to Fort D. A. Russell to play in our Polo Tournament which will be held at this post from the 7th to the 10th of July, 1930. During Colonel Pliego's visit he was tendered a review by the regiment and witnessed an exhibition of jumping by the Olympic prospects now in training.

During the month of May each Squadron of the regiment accompanied by a platoon and one squad of the 37 mm. Gun Section, Machine Gun Troop, and by communication and engineer detachments from Headquarters Troop, made a ten day march and a reconnaissance of the sector of the Big Bend of Texas assigned to the 1st Cavalry. This march and reconnaissance was made as a part of the troop tests to determine the relative standing of troops of the regiment in competition for the Curtis Cup.

During the period from April 1st to May 30th the Regimental Commander and Executive officer conducted tests of all squads and platoons of the regiment to determine the squad and platoon of the regiment most proficient at drill, the use of their weapons and in tactical exercises. A squad from Troop B commanded by Corporal William Doernbach won the Squad Training Test. A platoon from Headquarters Troop commanded by Sergeant Leslie H. Hedglin won the Platoon Training Test.

The troop test for proficiency in leaving the barracks fully equipped for the field and in making and breaking camp was won by Troop E, commanded by Captain Donald R. Dunkle. Troop E

pitched camp and displayed all equipment for inspection in forty-seven minutes and fifteen seconds, then broke camp, forming in column ready to march in twenty-four minutes and fifty-three seconds. This troop has been awarded the Curtis Cup and Guidon for the troop having attained the highest general military proficiency for the training year ending May 31, 1930.

Good progress is being made in the construction by post labor of a new turf polo field at Fort D. A. Russell. The field has been laid out in the area north of the Officers Club and east of the swimming pool in a natural amphitheatre and a half mile race track constructed around the polo field. The side boards for the polo field were donated by the Marfa Chamber of Commerce and Rotary Club. Water for irrigation of the polo field will be obtained by draining the post swimming pool.

4th Cavalry, Fort Meade, S. D.

A "Skeet" range, for trap shooting has been completed and is used by members of the Post Gun Club every Sunday morning. The novelty of this class of shooting has aroused considerable interest and local civilian enthusiasts often participate as guests of Gun Club members.

The first Post Ride of the season took place Sunday morning, April 6, when about a score of officers and ladies of the garrison, together with a few civilians as guests, spent an hour or so on the bridle paths of the reservation. These rides are held every other Sunday throughout the summer, weather permitting, and are followed by a club breakfast at the Officers' Club.

Organization of a planning committee to make the preliminary arrangements for the 1930 annual Sturgis-Fort Meade Horse Show has been completed.

Under the direction of Major Jack W. Heard, the Post Golf Course has been placed in condition for summer play. A number of civilians from Sturgis have accepted membership in the club.

The funeral of "Deadwood Dick" (Richard W. Clark), nationally known character, and one of the last pioneer settlers of the Black Hills, took place at sunset on May 11, at Deadwood, S. D. The Fourth Cavalry Band, a firing squad from Troop F and a selected squad of buglers, assisted at the funeral ceremonies at the request of a delegation of citizens of Deadwood.

Troop A gave a farewell party on Tuesday evening May 13, in honor of the retirement from active service of Master Sergeant Thomas Fallon, for more than a quarter century a member of the troop, and for about fifteen years the Troop's First Sergeant.

The following named officers have been relieved from assignment to the regiment and will leave in the near future to assume their new duties: Captains H. H. Cameron and C. C. Strawn to the Cavalry School, as students 1930-31 Advanced Course; Second Lieutenant John G. Merrick, to the Cavalry School, as student 1930-31 Troop Officers' Course; Major Sidney V. Bigham to duty in the Office of the Chief of Cavalry, Washington, D. C.; Major Jack W. Heard as student Army War College, 1930-31 Course; Captain Solon B. Renshaw, V. C., as student Army Veterinary School, Army Medical Center, Washington, D. C.

The following named officers have been assigned to the regiment by recent orders from the War Department: Captain Hans E. Kloepper, upon completion of his present duty at the Command and General Staff School Fort Leavenworth, Kansas; Captain John H. Healy, upon completion of the present course of instructions at the Q. M. C. School (Motor Transport) Holabird, Maryland; Major Edward F. Shaifer, upon completion of his present tour of foreign service; Captain William T. Bauskett, Jr., upon termination of leave of absence, from Fort Riley, Kansas; First Lieutenant Harold E. Walker, upon completion of his present course of instruction at the Cavalry School, Fort Riley, Kansas.

5th Cavalry, Fort Clark, Texas

On April 27th, 1930, the regiment (less detachments) consisting of 23 officers and 411 enlisted men left Fort Clark to march on Encinal, the concentration point of the reinforced Cavalry brigade Commanded by Brigadier General H. S. Hawkins, for maneuvers.

Owing to unusually heavy rains in and adjacent to the maneuver area which resulted in the Neuces River being at flood height and making various fords in the area impassable, the original concentration plans were somewhat changed and the brigade was ordered to concentrate in the vicinity of Cotulla where the regiment arrived on May 5th.

On the afternoon of May 6th the regiment with the 1st Squadron of the 12th Cavalry, one platoon of machine guns, one 4.2" Stokes Mortar and radio pack set attached established an outpost about eight and one-half miles east of Cotulla on the Cotulla-Fowlerton road at the crossing of the Charco Morano Creek where by excellently concealing itself in the mesquite, it remained unobserved by the enemy airplanes for a period of thirty hours.

During the period of the maneuvers which continued until 6:00 o'clock on the morning of May 10th when they were stopped by the

Corps Area Commander the regiment was successfully engaged in the mission of delaying the enemy in his advance first to the crossing of the Frio River and again at Los Angeles. Upon the completion of the maneuvers the regiment returned to Fort Clark where it arrived on May 17th.

A few days after returning to the Post, target practice was resumed and will be continued until September 15th.

The R.O.T.C. Unit from Texas A & M College consisting of 38 students arrived at Fort Clark on June 1st to remain until July 12th for training under the direction of Major Wheeler, Captain Walker and Captain Gibson, Cavalry D.O.L.

First Lieutenant J. K. Sells has recently joined the regiment after his tour of duty in the Philippine Islands and has been assigned to the Machine Gun Troop.

The regimental baseball team opened the season on June 7th and defeated the Kelly Field Flyers by a score of 2-0 in a very well contested game. The second game played on the 8th resulted in a 6-4 victory for the Kelly Field Flyers.

6th Cavalry, Fort Oglethorpe, Ga.

As a fitting climax to the series of weekly horse shows held during the month of March, a two-day show was held on April 11-12, for the benefit of the Army Relief Association. Entry lists ran very high including many civilians from nearby cities. The showing made by Olympic prospects under training in the regiment was very gratifying.

On April 16th the regiment departed for Atlanta, Georgia, on the annual practice march, returning to home station on May 2d. The march to and from Atlanta, and camp while in Atlanta, was made under ideal weather conditions. While in Atlanta personnel of the regiment participated in the horse show of the Atlanta Horse Show Association, held at Piedmont Park, adjacent to camp site of the regiment. The hospitality extended members of the command while on the march and in Atlanta is worthy of note. Captain J. T. Godfrey, Assistant Military Attaché, British Embassy, accompanied the regiment on the last day's return march.

The 69th Anniversary of the regiment was celebrated with befitting ceremonies on May 5th, May 4th falling on Sunday.

Troops A, B, and F completed target practice at Catoosa Range on May 29th. All range firing including pistol and saber has been completed with exception of machine gun firing.

Our companions-in-arms, the 3d Battalion, 22d Infantry, departed for Fort McClellan, Alabama, May 23d, for summer training.

Troop E, 6th Cavalry, departed for Camp Knox, Ky., on June 2d, for summer training.

Fire of unknown origin destroyed one of the Machine Gun Troop stables on May 15th.

Three excellent fight cards have been held during the past three months, the last two being held in open riding pen drew attendance of approximately 750 and 1100 for each card.

The Reserve Officers Sunday Riding Class, sponsored by the 63d Cavalry Division, terminated the season with a horse show held in the post ring on McDonald Field on Sunday, May 25th. The progress in equitation made by members of this class is very noticeable.

Polo has been very active since April. The regimental team recently participated in tournaments at Fort McPherson, Georgia. It is sad to relate that Fort Benning defeated the 6th Cavalry in two very close and hotly contested games. The 6th Cavalry defeated Fort McPherson in the consolation game of the Southern Circuit.

Activities at this time are centered on the preparation for the reception, instruction and training of about 900 C. M. T. Camp Trainees, 65 R. O. T. Camp Students, 125 Reserve Officers, and the National Guard Cavalry units of the States of Tennessee, Georgia, North Carolina, Alabama and Louisiana. The summer camps will be in operation from June 13th to August 17th.

7th Cavalry, Fort Bliss, Texas

The movement of the Seventh Cavalry to the target range at Dona Ana took place about June 5th. At the time of the publication of this Journal the Garry Owens will have been dodging mirages and baking in the desert sun at the range for nearly a month. The popular saying is "A Marksman at Dona Ana is an Expert anywhere else."

At the Horse Matinees the Garry Owens have taken many prizes and developed some splendidly schooled horses. The outstanding horse at the matinee held May 21 was *Lone Star* ridden by Sergeant Witaski. This horse took the blue ribbon with high scores both in the Schooling Class and in the Open Jumping.

In polo the Garry Owens have been very active considering that this is the off season. A strong team from New Mexico Military Institute was defeated at Fort Bliss by the 7th Cavalry Senior Team in a fast game the latter part of April. On May 17, the Garry Owens Juniors defeated a civilian team composed of Mr. Alex Dickey, Mr. Ham, Mr. J. Floyd, and Mr. McGraw from Abeline, Texas. The Fort Bliss picked team that went to Roswell, New Mexico, to play the Military Institute team at its graduation exercises had on it two

Garry Owens, Captain Voigt and Lieutenant Harkins. Our string of new remounts are coming 'round rapidly. We expect some fast polo next fall.

A very enthusiastic enlisted personnel has followed the Intra-Regimental Baseball season to see the League cup won by Troop A. The Garry Owens are now holding their own very well in the Fort Bliss Post League.

On May 13, Colonel and Mrs. Martin gave a dinner, reception and dance in honor of the regiment's new brides, Mrs. Harry C. Mewshaw and Mrs. W. H. Greear.

The following changes in the officer personnel has taken place during this quarter: Chaplain (Major) Thomas E. Swan has arrived to take the place of Chaplain (Major) De Barteleben as Regimental Chaplain, Chaplain De Barteleben having gone on leave previous to new assignment. Major R. W. Strong has gone to Washington for duty in the Office of the Chief of Cavalry. Major Joseph L. Phillips has gone on leave prior to his new assignment with the Faculty at Fort Riley, Kansas, and Captain Robert P. McComb has taken four months' leave, after which he will go to the Army Medical Center at Washington, D. C. Captain R. P. Gerfen has taken leave prior to duty at the Cavalry School at Fort Riley, Kansas. Second Lieutenant John P. Breden has gone on leave, after which he will attend school at the Massachusetts Institute of Technology on detail with the Ordnance Department.

8th Cavalry, Fort Bliss, Texas

During the month of March the regiment was busily engaged in regimental tactical and field exercises and participated in field and tactical exercises conducted by brigade and division. Commencing March 17th the regiment was engaged in preparatory training for range practice.

The prescribed rifle, machine rifle and machine gun courses were fired at the Fort Bliss Target Range between May 6th and May 30th. The following regimental averages were obtained: Rifle Course "A" 99.72%; Rifle Course "D": 90.32%; Machine Rifle Course "A" 100%; Machine Gun Course: 100% qualified.

In the regular monthly Horse Matinees held at this post the regiment won the following places:

<i>March</i>	<i>Points</i>
Officers' Chargers—first and second place	8
Remount Jumpers—first place	5

Novice Jumpers—first place	5
4 feet 6 inches Open Jumping—first and second place	8
4 feet 9 inches Open Jumping—first and third place	6
Ladies Jumping	3

Total points	35
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April

Officers' Chargers—first and third place	6
Remount Jumpers—first and third places	6
Novice Jumpers—first, second and third places	9
Ladies' Jumpers—second place	3
4 feet 6 inches Open Jumping—first place	5
4 feet 9 inches Open Jumping—first and third places	6

Total points	35
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Due to range practice the regiment was not represented in the Matinee held in May.

The regimental baseball team has won three and lost no games in the Fort Bliss mid-summer league.

The regiment has been constituted as the parent organization for C. M. T. C. and R. O. T. C. training camps during the month of June and to July 19. Mounted pistol and saber practice in small groups will be the rules for the regiment during the training camp period.

The following officers have been transferred: Captain V. L. Padgett and 1st Lieutenant J. K. Baker to the Cavalry School; Captain T. W. Herren to the 6th Cavalry, Fort Oglethorpe, Ga.; Major J. C. F. Tillson, Jr. to the War College, Washington, D. C.; Major Harold Thompson to the Command and General Staff School; 2d Lieutenant D. G. Ludlam, O. D., to Aberdeen Proving Ground, Md.; First Sergeant Frank Hirsch, Troop B, was retired May 6, 1930. Master Sergeant Charles A. Thompson Headquarters Troop, was retired June 6, 1930.

9th Cavalry, Fort Riley, Kansas

The Regimental Commander, Lieutenant Colonel R. M. Campbell, Cavalry, left June 2, 1930, en route to Walter Reed General Hospital, Washington, D. C., for observation and treatment. Major H. J. M. Smith, 9th Cavalry, assumed command of the regiment June 2d, and has been detailed as acting executive officer, The Cavalry School, during the temporary absence of Lieutenant Colonel Campbell, Cavalry.

War Department orders have been received affecting the personnel of this regiment as follows:

First Lieutenant Clovis E. Byers has been assigned to the regi-

ment, effective on or about August 20, 1930, upon his relief from assignment and duties at the United States Military Academy, West Point, New York. Lieutenant Byers will be a student in the 1930-31 Special Advanced Course, The Cavalry School.

Captain E. M. Burnett, Cavalry, has been assigned to the regiment, at the expiration of the present course at the Cavalry School.

Captain James T. Menzie is relieved from assignment to the regiment, effective on or about June 20, 1930, and is assigned to the 3d Cavalry, Fort Myer, Va.

First Lieutenant Francis P. Tompkins, 10th Cavalry, is relieved from assignment to that organization and from further duty at Fort Huachuca, Arizona, effective on or about June 20, 1930, is then assigned to the 9th Cavalry.

Captain Thomas Mc. F. Cockrill, Cavalry, who was assigned to the regiment, upon completion of duty as a student at the Command and General Staff School, has been promoted to the rank of major.

Captains Carleton Burgess, and Alexander B. MacNabb, are assigned to the regiment, upon completion of duty as students at the Cavalry School.

Orders assigning Captain Roy E. Blount, 11th Cavalry, to the regiment, effective on or about September 1, 1930, have been revoked.

Captain Wayland B. Augur, 13th Cavalry, who was relieved from assignment to that organization, and assigned to 9th Cavalry, joined on April 5, 1930. Captain Augur is attached to Headquarters and Service Troop, for duty, and has been detailed on special duty with the Academic Division, The Cavalry School, as instructor, in addition to his other duties.

Captains Orland S. Peabody and John C. Macdonald are relieved from assignment to the regiment, effective September 3, 1930, and are detailed as students in the 1930-31 advanced courses and special advanced equitation course, The Cavalry School, respectively.

Major Francis C. V. Crowley, is relieved from assignment to the regiment, and from further duty at Fort Riley, effective at such time as will enable him to report not later than September 10, 1930, to the commandant the Motor Transport School, Holabird quartermaster depot, Baltimore, Maryland, for duty as a student in the 1930-31 course.

Captain Harry A. Patterson, Cavalry, who was relieved from assignment and duty at the discharge and replacement depot, Brooklyn, New York, and assigned to the 9th Cavalry, effective on or about May 15, 1930, joined May 16th. Captain Patterson is commanding Headquarters and Service Troop, and has been detailed on special duty as Post Exchange Officer and Post School and Recreation Officer, in addition to his other duties.

Major H. J. M. Smith, is relieved from assignment to the regiment and duty at Fort Riley, effective August 22, 1930, and is detailed to pursue a course in instruction at the Quartermaster Corps Subsistence School, Chicago, Illinois.

Orders have been received from the War Department relieving Captain Paul H. Morris from assignment to the 9th Cavalry, and directing him to sail from New York City on the S. S. Republic July 26, 1930, for Bremen, Germany, and proceed to Hanover, Germany, for the purpose of pursuing a two years' course of instruction at the German Cavalry School.

Captain James V. V. Shufelt, Cavalry, has been assigned to regiment, effective upon completion of duty as student at the Air Corps Tactical School, Langley Field, Virginia.

Captain Murray H. Ellis, Cavalry, who is now pursuing a course of instruction at the Superior Riding School, Grudizeadz, Poland, is assigned to the regiment, effective September 10, 1930.

10th Cavalry, Fort Huachuca, Ariz.

The Post Repair Program started on January 1, 1930, has now been completed and all troops are concentrating on target practice. The 1st Squadron, Major W. H. W. Youngs, commanding, is now in camp on the target range and expects to complete its firing by June 15th. The 2d Squadron, Major B. L. Burch, commanding, will then move to the range.

The Arizona State Rifle Association matches were held on the Fort Huachuca target range on Saturday and Sunday, May 3d and 4th. Many civilians and National Guard officers participated in these matches, which were most successful and enjoyed by every one. The Post welcomes this opportunity to renew its friendship, each year, with the representative marksmen of Arizona.

A Post horseshow consisting of fifteen classes, was held on May 7. This show was the first of a series of monthly horse shows. The novelty jumping class was of special interest. Eight horses were entered in this class but only one, *Trinidad* ridden by Second Lieutenant R. W. Curtis, was able to finish the course. Captain W. R. Irvin on duty at the University of Arizona was senior judge for the show.

The training of horses for the 1932 Olympic Games is being continued under the direction of 1st Lieut. F. P. Tompkins, and satisfactory progress is being made. Lieut. Tompkins, however, is under orders to leave for Fort Riley, Kansas, the latter part of June and his loss will be keenly felt.

Forty-four remounts from Fort Robinson have been received and



A Troop of the 10th Cavalry Attacks

are at present in quarantine. They are a fine looking lot of animals and great results are expected from them.

The baseball season has started in earnest at this post. Games are held every Wednesday and Saturday afternoons and many fine players are being developed. There are five teams participating in a series at present being played. The team composed of players from Companies L and M, 25th Infantry is at present leading the league with Headquarters and Machine Gun Troops, 10th Cavalry a close second.

Talking pictures have at last come to Fort Huachuca and the Post Theatre has been crowded for each show. The pictures have been splendid and the sound apparatus is excellent, the equal or superior to any found in nearby cities. The whole post welcomes "the talkies" and is grateful to the U.S.A.M.P. Service for installing them so promptly and efficiently.

Representatives from the Fox Movietone Newsreel spent several days on the post during May taking "talkies" of various post and regimental activities. The whole post entered into the spirit of the movies and we are all anticipating seeing the results.

12th Cavalry, Fort Brown, Texas

Emerging victorious from the battles on the Frio River, Colonel Daniel Van Voorhis' 12th Cavalry is nearing home on its long march along the Rio Grande.

With orders to "delay and harass" the Blue army, four times its strength, the White force including the 5th and 12th Cavalry, not only delayed but actually stopped the "enemy," and when the chief umpire called off the maneuver, was so disposed as to easily cut the Blue communications as well as delay their further advance.

The maneuvers were replete with brilliant actions among the most noteworthy were the long night march of the 12th Cavalry followed by an attack on the hostile flank and the defense of the Frio River line by the same regiment the following day.

It would take many pages to detail the individual and troop exploits. In general very high praise was given the commander and all officers and men of the 12th Cavalry. Individual exploits by Captain Shoemaker's, Lieutenant Palmer's and Lieutenant Finnegan's patrols in rear of the enemy's lines sound like fiction; the excellent handling of machine guns and rifles by the Cavalry was a source of wonder to the Infantry, the way in which the horsemen eluded the vigilant eye of the air observers surprised all; but most of all, the speed with which the Cavalry disappeared and then appeared miles away kept the Blues in a constant state of fear and hesitation and brought the greatest praise from neutral observers.

The 12th Cavalry finished the maneuvers in excellent condition and health and with the highest morale. It was the first time in many years that the regiment has been all together. The return march brings the Fort Ringgold troops home on the 20th and the Fort Brown command on the 26th of May.

13th Cavalry, Fort Riley, Kansas

On May 19th the entire regiment took the field for a six days' practice march and maneuver. For march and maneuver purposes, the regiment was daily turned over to the student body for school training. Camps were established at Chapman, Herington, Council Grove, and Brown's Ranch near Dwight. At Herington, Troop E was detached and marched to Brown's Ranch as a reconnaissance troop; from there, it covered the advance of the remainder of the regiment toward Fort Riley. The maneuver against the opposing forces to the north, commenced at 6:00 A. M., May 22d. At Council Grove and Brown's Ranch, the troops bivouacked and sought concealment from airplane observation. Night marches were made northward from Council Grove and Brown's Ranch. At day-break, May 24th, a feint-crossing of the Kansas River was made near the Engineer Bridge simultaneously with a main effort to force a crossing from the wooded peninsula west of Marshall Field. Troops, in accordance with the decision, were ferried across the Kansas River in pontoon boats. A short dismounted advance was then made toward Reservoir Hill.

A review of the regiment was held on May 29th in honor of Master Sergeant Elmer C. Opdahl, 13th Cavalry, who retired on May 26, 1930. An announcement of Sergeant Opdahl's retirement was

published in a regimental general order giving a resume of his services. All of Sergeant Opdahl's discharges bear the notation "Character Excellent." He has had over sixteen years' service in the Cavalry, all except three years having been with this regiment. During the Spanish-American War he served in Porto Rico, and during the World War in France with the 15th Cavalry. On May 30, the Headquarters Troop tendered a farewell dinner in honor of Sergeant Opdahl.

Organization Day was celebrated on May 1, 1930, by the regiment enjoying a complete holiday, all drills having been suspended for the occasion. To usher in the holiday in an appropriate manner, a regimental enlisted man's hop was held on April 30th, all officers of the regiment attending in the early part of the evening.

The loss of officers by transfer this summer is, as usual, heavy. In addition to those changes published in the last issue, the following officers will leave the regiment in the near future: Captains H. C. Holdridge, R. P. Gerfen and F. T. Murphy to the Cavalry School as students, Advanced Class; 1st Lieutenants W. C. Scott and L. M. Grener, 2d Lieutenants C. S. Babcock, Jr., H. M. Forde, T. C. Wenzlaff, G. V. Ehrhardt to the Cavalry School as students, Troop Officers' Class; 1st Lieutenant J. C. Hamilton to the Tank School as student. Officers joining the regiment this summer are: Major N. M. Imboden, from duty as student, the Infantry School; Captains N. W. Lisle, from R.O.T.C. duty at San Francisco, California; H. H. Baird, from duty as student, the Tank School; H. W. Worcester, from R.O.T.C. duty at Tucson, Arizona; C. E. Dissinger, from foreign service, Philippine Department; 1st Lieutenants E. N. Schjerven, from duty as student, the Signal School; L. E. Schick from the U.S.M.A.; A. L. Fulton and 2d Lieutenants A. M. Miller, Jr., from the 6th Cavalry; R. T. Garver, D. E. Bradford and R. A. Browne, from duty as students, The Cavalry School.

1st Squadron, 14th Cavalry, Fort Sheridan, Ill.

Troop B 14th Cavalry, on Sunday, May 25, 1930, won the Foreman five man pistol Team Match at the rifle range at Fort Sheridan. They competed with civilian teams of five men each and beat their nearest rival by 114 points. This is the sixth time this match has taken place annually and the first time that a service team has won it. The Colonel Milton J. Foreman Trophy which is an equestrian statue of considerable dimensions will be in the custody of Troop B for one year.

The first squadron 14th Cavalry is and has been for the past

month in a state of preparation for the Military Tournament and Exposition to be held at Soldiers Field, Chicago, from June 21 to 29, inclusive. And which will be participated in by all Regular Army units from this vicinity and also from Michigan and Jefferson Barracks, Missouri. Troop A will put on Monkey drill twice a day at the stadium for nine days and Troop B will do a fancy riding drill and the fire hurdle. In addition to this the squadron is charged with the Cavalry exhibit, as part of the exhibition of the tournament.

Both troops of the squadron finished with a high percentage on the rifle range this spring, Troop B qualifying 100 per cent and the Squadron losing only six out of a total of nearly 200 men. Range work was completed at an early date for this climate as every one was off the range by May 1, 1930.

The Fort Sheridan Horse Show association contemplates sending a team of officers from this post to represent them in the several horse shows of the Lake Shore circuit this summer. As usual most of the horses and all of the officers sent will be from the first squadron, 14th Cavalry. It is contemplated sending 22 horses by truck to the Oconomowoc Horse Show, a distance of 95 miles which is held on June 27 and 28, 1930. At none of the five shows besides our own show will we have a representation of less than 12 horses and four officers or other riders.

The following officers are leaving the First Squadron, 14th Cavalry in the near future or have already left, and are going to the places set opposite their names. Captain T. W. Ligon, to Fort Meyer, Virginia, for service with the Third Cavalry. His orders read as of June 20, 1930. Captain James S. Rodwell, to service at the Infantry School, Fort Benning, Georgia, as a student. His orders read as of September 4, 1930.

Among the new officers who have arrived or will arrive shortly are: Captain W. O. Johnson, from D.O.L. at Fond du Lac, Wisconsin, and Major C. C. Smith, from duty at Fort Riley, Kansas.

26th Cavalry, Fort Stotsenburg, P. I.

The annual Fort Stotsenburg Horse Show, Race Meet and Polo Tournament was held during the week commencing March 15, 1930, and continued for a period of ten days. Two of the days were devoted to the Horse Show, one day to the race meet and the balance of the time to the polo tournament.

The horse show program of events had listed the usual military show jumping classes, best turned out trooper, etc., and in addition had two children classes and two ladies classes, including a saddle

class and a jumping class. The competitors were from the 26th Cavalry, the 24th Field Artillery, officers and civilians from Manila.

Captain Carl J. Rohsenberger's two hunters, *Moonshine*, and *Sunshine*, both recently arrived from the States were easily outstanding in the jumping classes, both winning many ribbons. *Apollo*, a beautiful bay of the heavyweight polo type, owned by Lt. V. Z. Gomez, 24th F.A., was high point winner due to his wins in the purely saddle classes and polo pony bending race. Civilian ponies from Manila owned by the Elizalde Brothers won the lion's share of the polo pony classes.

The riding of the soldiers in both the horse show and the race meet was particularly good and their performances were excellent.

Two polo tournaments were conducted concurrently between the horse show and the race meet days by Capt. G. S. Finley of the 26th Cavalry. Both tournaments were well played and the game between the 26th Cavalry and the Manila Polo Club was real "big league" polo. This was the final game of the "A" tournament and resulted in a victory for the civilians, due to their better mounts and more accurate hitting. The "B" tournament was won by the 26th Cavalry.

305th Cavalry, Philadelphia, Pa.

The 305th Cavalry are now occupying their new headquarters in Room 1010 Gimbel Bldg., Philadelphia, Pa. However, due to increased training activities, it was found necessary to retain their former office at 1010 Franklin Trust Bldg. for a conference room.

The inactive duty training of the regiment which started in October is still in full swing. The riding classes are being continued under the direction of Major L. C. Bell, Cav.-Res. and 1st Lieut. Edward A. Town, Cav.-Res. Lieut. Town is a graduate of the Riley Reserve Officers class and, although assigned to the 2d U. S. Cavalry, is still keenly interested in the work of the regiment. In former years the equitation classes were discontinued after the regimental ride on Regimental Day, April 17th. However, at the request of members of both classes, they are being continued as a part of the schedule preparatory to active duty training in August with the 3d Cavalry. The average weekly attendance for the two classes has been 27 officers.

The conferences in preparation for the Corps Area Command Post Exercise are being conducted by Major Charles L. Clifford, Cavalry, Unit Instructor, during the noon hours twice weekly. Conferences are also being conducted for the officers of the regiment preparatory to the active duty training at Fort Myer with the 3d Cav-

alry. It is expected the regiment will send its full authorized quota for this training.

Several of the Reserve Officers have taken advantage of the opportunity to assist in the Cavalry instruction of cadets at the Pennsylvania Military College at Chester, Pa. Universal Films are now showing a very interesting film on the crossing of a large stream near Chester.

A monthly conference in addition to the bi-weekly conferences is also held at 1st City Troop Armory after the regular Wednesday ride on date scheduled. The attendance at all conferences is very gratifying and the interest shown is keen.

On April 17th, the annual Regimental Day exercises were held by the regiment and proved to be the most successful of any of the previous celebrations in the history of the regiment. Many distinguished guests were present and over fifty officers of the regiment. The graduation ride of the regimental riding class was highly complimented by all who witnessed it. The white halters, tie ropes, and boots on the well groomed horses showed great attention had been given to all details by Major L. C. Bell who was mainly responsible for the fine performance. Upon completion of the ride the annual dinner at the Racquet Club was held. All present enjoyed the splendid talks given by invited guests.

In the course of the talk by Colonel George T. Bowman, our popular Chief of Staff, he announced the promotion to Captain of 1st Lieut. Lucullus N. D. Mitchell, effective on Regimental Day.

At the recent Philadelphia Indoor Show the regiment was represented by a team composed of Captain L. N. D. Mitchell, 1st Lieut. E. A. Town, 2d Lieuts. George B. Knabb and L. P. Stradley, and Corporal E. L. White. Lieut. Town received the cup which went with the blue ribbon in the Military Class.

The 305th Cavalry is represented this year at the Devon Horse Show with entries by Captain Max Livingston and Captain William S. Brogden.

306th Cavalry (less 2d Squadron) Baltimore, Md.

The personnel of the 306th Cavalry has been very busy preparing for the C. M. T. Camp and the Third Corps Area Command Post Exercise. It was found necessary to increase the number of conferences of both groups to one each week, and the officers have responded well and are generously giving a great deal of their time to this work.

Major Wm. H. Skinner will be in command of the reserve officers

who will train the students at the Cavalry C. M. T. Camp at Fort Myer, Va., July 5th to 18th, 1930, and the seventeen reserve officers who will assist him have been selected about equally from the Washington and Baltimore personnel. These officers will act as instructors for the first half of the camp and officers from the 307th Cavalry will handle the training for the remainder of the period.

At the Third Corps Area Command Post Exercise, to be held at Fort George G. Mead in July, 1930, our regimental commander Colonel John Phillip Hill, will command the 154th Cavalry Brigade, and our executive officer, Lieutenant Colonel Matthew F. James, will act as chief of staff of the 62d Cavalry Division. Other officers will act on the division and 154th Cavalry Brigade.

Through the courtesy of the Commanding General, Fort Hoyle, Md., and the Sixth Field Artillery (Horse), a class in equitation has been started at Fort Hoyle, Md., for the reserve personnel of the Baltimore Units. Sessions are held on alternate Sundays.

2d Squadron, 306th Cavalry, Washington, D. C.

Active duty training for the officers of this squadron will be very diversified during the summer and the officers have been very busily engaged in preparing themselves for this work.

Major Geary F. Eppley, Cav-Res., the squadron commander, and several other officers of the squadron, will attend the Command Post Exercise at Fort George G. Meade, Md., July 6 to 19, 1930.

A number of the officers of the squadron have been selected for active duty training at Fort Myer, Va., July 5 to 18, 1930, in connection with the training of the C.M.T.C.

Other officers of the squadron, not attending camps as referred to above, have been given an opportunity to attend camp with the 305th and 308th Cavalry, Fort Myer, Va., August 10 to 23, 1930.

Regular courses of inactive instruction are being conducted for those officers who are to attend the Command Post Exercise and for those to attend the C.M.T.C. at Fort Myer, Va., as instructors. In addition to this instruction, regular monthly conferences are held, and equitation classes conducted each Sunday morning at Fort Myer, Va.

307th Cavalry (less 3d Squadron and Mg. Troop) Richmond, Va.

The 307th Cavalry Association composed of prominent men throughout the Commonwealth of Virginia is a going organization. To date over forty gentlemen widely known for their active interest in the horse have accepted membership. The list includes West-

moreland Davis, former governor of the State, more recently President of the Virginia Horse Breeders Association, as well as the Masters of all Hunt Clubs in the State.

The object of the Association is to stimulate the interest of the officers assigned to the 307th Cavalry, in their obligations as reserve officers and thus raise the standard of the regiment. It is thought that the great interest displayed by these gentlemen who are the heart and soul of all activities connected with horses in the State will be an inspiration to the active members of the regiment.

The full quota (eighteen officers) for the training of the C.M.T.C. at Fort Myer, Virginia, July 18th to July 31st has been obtained. Those officers not ordered to active duty for the foregoing period and who desire training this summer will be ordered to active duty for the period August 10th to August 23d at Fort Myer, Virginia.

Lieutenant Colonel R. B. H. Begg, Cav-Res., 307th Cavalry has been designated to command during the period July 18th to July 31st.

Lieutenant Colonel W. H. Clifford, Cav-Res., commanding the 307th Cavalry, has been detailed as G-4 on the staff of the 62d Cavalry Division during the CPX at Fort Meade, Maryland, July 6th to 19th.

3d Squadron, 307th Cavalry, Norfolk, Virginia

Active duty training for the officers of this squadron, will be very diversified during the summer and the officers have been busily engaged in preparing themselves for this work.

Major James R. Mullen, the Commanding Officer has been selected at a member of the Special Staff of the 62d Cavalry Division for the Command Post Exercise to be held at Fort George G. Meade, July 6 to 19.

Lieutenants L. L. Montague and W. L. Renn, Jr., have been selected as instructors at the Citizens' Military Training Camp, Fort Myer, Va., for the period July 17 to 31st.

Other officers of the squadron will receive active duty training at Fort Myer, Va., with the 305th and 308th Cavalry during the period August 10 to 23. The officers attending this camp will receive tactical training with the 3d Cavalry, which will prove most instructive and interesting.

308th Cavalry, Pittsburgh, Pa.

Polo was added to the activities of the 308th Cavalry, Pittsburgh, early this spring. Through an arrangement with the 107th Field Artillery, a number of thoroughbred polo ponies were purchased and made available to teams of both regiments.

Out of three games played so far this season, the team won all three, defeating both Shadyside Academy and the 107th Field Artillery, the latter twice.

Major A. H. Truxes and Sergeant Bliss Flaccus as No. 1's, Lieut. U. S. Madden, as No. 2, and Lieut. Paul Mazuzan, as No. 3, have carried the honors, playing a fast open and hard-hitting game.

In addition to the regular polo ponies a number of second-string mounts have been obtained, making it possible for every officer in the regiment, so inclined, to participate in this sport. Practice is held twice weekly at the 107th Field Artillery Armory. Lack of an outdoor field has confined the game indoor this spring, but an outdoor field now in course of construction will be ready before the beginning of another season.

The regiment is preparing for active duty training at Fort Myer, Virginia, August 10 to August 23d, 1930. The following field officers are going to the Corps Area Command Post Exercise in July: Lieut. Colonel George H. Cherrington as G-3; Major John H. Shenkel as G-2 and Major Basil H. Minnich as Aide and Assistant General Staff Officer.

The strength of the 308th Cavalry shows a gain in spite of inactive reappointments which will be few from now on.

Last year the officers earned over 3700 credit hours and this year it will be even greater.

862d Field Artillery, Horse, Baltimore, Md.

Inactive training in this regiment has now been definitely transferred to the Unit Commander and to his officers who are taking up their new responsibilities with commendable earnestness and much success.

Special instruction is being given to the regimental staff, to prepare it to function at the Command Post Exercise to be held in this Corps Area in July. The time available for this instruction—fifteen meetings of two hours each—is sufficient to develop the more important principles and to lead the group to a point where the members will be able to derive the maximum benefit from the instruction and experience to be received at the Exercise.

66th Cavalry Division, Fort Omaha, Nebraska

The inactive duty training period during the past year, has been the most successful in the history of the division. Regular classes have been held in Kansas City, Mo.; Topeka, Kan.; Des Moines, Ia.; Minneapolis, Minn.; St. Joseph, Mo.; and St. Louis, Mo.; all of which

were well attended by the Cavalry Reserve officers of each locality. The number of officers taking Army Extension Courses has increased nearly fifty per cent over the preceding year.

Riding and equitation classes are a weekly occurrence in Kansas City, Des Moines, and St. Louis, and these are a big factor in building up the spirit and enthusiasm which are necessary in order to hold the Reserve officers' interest.

Colonel C. S. Babcock, Unit Instructor, and Major D. G. Richart, Asst. Unit Instructor, 322d Cavalry, Kansas City have done much to arouse the interest and boost the morale of the division officers in that section and this has resulted in a considerable increase in new officers.

Great credit is due Major D. C. Smith, Cav-Res., St. Louis, Mo. The hard and painstaking work of this enthusiastic officer has produced a real cavalry unit in and around St. Louis. He has conducted conference classes, instructed in small arms firing, and made an excellent reputation for the Cavalry Reserve officers' pistol team in local competitions. On Sunday mornings Major Smith acts as instructor for the Reserve Officers' riding class at Jefferson Barracks.

The Cavalry Reserve Officers Association of St. Louis is an enthusiastic and helpful organization and the work of these officers under the leadership of Major Smith is a credit to the Cavalry service.

The division (less 162d Brigade) will go to summer training camp at Fort Riley, Kan., July 6 to 19, under command of Colonel J. E. Gaujot, Chief of Staff who also will be Executive Officer of the entire Organized Reserves Camp for the above period.

Capt. C. O. Griffin Adjutant General, 66th Cavalry Division, will be Camp Adjutant, Major Harding Polk, Assistant Instructor of Cavalry and First Lieutenant James Y. Le Gette, Instructor of Field Artillery.

The following units which come under the jurisdiction of the 66th Cavalry Division Headquarters, also will be ordered to active duty at Fort Riley, 2d Cavalry Division, 3d Cavalry Division, and 15th Cavalry.